FUNDING CLIMATE AND ITS IMPACT ON NEW VENTURE SUCCESS: TOWARD CONSTRUCT IDENTIFICATION AND SCALE VALIDATION

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Abstract: To date, the relationship between a business management team and its funding source to new venture success has not received a great deal of attention in the literature. This research attempted to fill the knowledge gap by applying established behavioral ecology models of predator and foraging behavior to develop and validate the funding climate construct (i.e., the perception of a management team member regarding the funding style of the funding source). Adding to the current research, I explored, developed, and validated a new measure and by doing so, demonstrated an optimum fit between a funding source type and the passion and preparedness of the business management team toward new venture success.

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CHAPTER I

INTRODUCTION

Entrepreneurship literature includes very little about the interaction between a funder (also known as an investor) and a business management team and how that relationship contributes to a new venture's entrepreneurial success beyond traditional financial outcome measures. Researchers in entrepreneurship and related fields know that along with a business plan for the idea, funding resources to start that business is essential. If this process of aligning the idea and the plan with a funder were mechanically based, then an algorithm could be derived logically, and return on investment (ROI) tables could be created so that matches between entrepreneur and funder would be perfect solutions to mathematical problems. Unfortunately, real-world scenarios are more results of organizational behavior representing a search for the best match, similar to a "dating game" in which players act out their roles as the hunter and the hunted or as predator and prey.

With both cognitive and affective influences at work in the funder's and entrepreneur's "dating" or hunting process, Baum and Locke (2004) discussed the tantamount importance of the senders communicated vision and the message content when exploring the construct of entrepreneurial passion and preparedness. Baumo (1968) explained that "trying to understand entrepreneurship without the entrepreneur is like

trying to understand Shakespeare without Hamlet" (p. 64). The same analogy can be used for understanding the funding source. The current literature has little research on matching a funding source with an entrepreneur, while a great deal of writing exists on entrepreneurial characteristics. The knowledge gap this study attempted to fill is how funder and entrepreneurial management team interact to yield new venture success. There is virtually nothing in the literature on funding climate understood as the management team's shared perception of an organization's funding source. To address this primary question, researchers must first understand how entrepreneurs perceive their sources of funding.

Background

Funding is an essential ingredient in operating a viable business. The process of garnering funding and keeping a business capitalized can be challenging and daunting for established and would-be entrepreneurs. Private companies have contributed over 50% of the national GDP and 65% of new job creation in the United States (Hamilton, 2012). Despite the wide array of businesses, there are limited funding sources available to all of them. There are generally four ways by which a company can generate funds: (a) making a profit, (b) selling a product/service for more than the individual product/service costs to produce, (c) selling part of the business (e.g., shares to investors), or (d) simply borrowing money from a funding source. When raising capital, an entrepreneurial management team attempts to develop a mutually beneficial relationship with its funding source if the business is to develop and sustain itself. Concurrently, the funder is challenged with evaluating risk in investment choices to develop confidence in both the investment opportunity as well as the key individuals making up the management team of

a particular business. Ultimately, for an investment opportunity to be considered viable for both sides, the interaction between the funding source and the management team should be a workable match that benefits both.

The relationship between funder and business is much like the path to a marriage, where the dating phase begins when one seeks a partner while looking for a mutual fit. This "hunt" to form a bond with an entrepreneurial management team that does not offer the right fit could result in a fundamental business concept conflict and financial ruin. The type of relationship a funder wants with the business entrepreneur varies significantly from the expectations of different funding sources. Often banks may demand quarterly reports on the financial position or have requirements that must be met above and beyond the repayment of the loan; these are commonly called bank covenants. Other funding sources, for example private equity firms, may have direct involvement in the daily operations of the business, while angel investors or silent partners generally have little or no involvement with operating the business and remain dormant over the long run. Regardless of the techniques, each funding relationship needs to fit with the expectations and styles of the funder and the business leaders (De Clercq, Fried, Lehtonen, & Sapienza, 2006).

Today's business entrepreneurs have reached celebrity status beside famous investors through a variety of media outlets now popular internationally, especially in television. One current TV reality show promotes this entrepreneur/funder relationship with a 21st century twist on an old model of a popular 1970s show called "The Dating Game." In that game show, prospective escorts underwent interviews and evaluation while hidden behind a screen from an inquisitive questioner seeking a relationship and

having no history with or previous exposure to the candidate escorts. Today's entrepreneur/funder series is aptly named "Shark Tank," and it provides a similar format in which hopeful entrepreneurs are interviewed by experienced prospective funders/investors who offer a range of engagements from no-deal to shared risk propositions at a variety of ownership percentages and control arrangements. There are no guarantees, and even with a great idea and management team, failure can result if matched with an incompatible funding agency (Roger, Holland, & Hass, 2002). An alignment of personality, expectations, and deliverables is important in forming a cohesive business to investor/funder relationship. The funder's presented style is important to the relationship with a prospective business because the entrepreneur perceives that style and responds to its fit. In the best case, a match occurs or enough interest is generated to begin a dialog and solid content exchange.

This research aimed to theoretically and empirically identify a climate for funding by building on behavioral ecology theories of foraging and predator behavior (i.e., investors in the role as a 'predator'). I drew on behavioral ecology and conceptualized funding climate based upon three styles of predation that comprise the factors of the funding climate: active (ACT), sit and pursue (SAP), and sit and wait (SAW), as shown in Figure 1. Additionally, I sought to bridge the knowledge gap by providing a base for new venture success, which is accomplished through a good fit alignment between the funding source and a management team as validation of my funding climate framework. Considering a practical perspective, I am offering a structure for aligning entrepreneurial management teams with funding sources based on a funding climate to achieve new venture success.

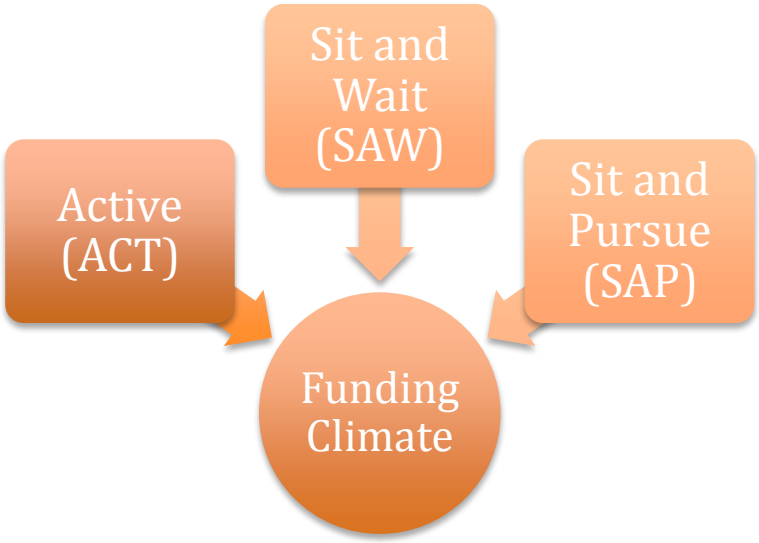


Figure 1. Expected factor structure of the funding climate.

Summary

This introductory chapter provided a brief overview of this project's topic of how funders and entrepreneurial management teams interact to generate new venture success. In Chapter 2 the literature review includes the theoretical foundation of climate, both psychological and organizational, and the relevance of behavior ecology, particularly of predatory and animal feeding behaviors, to a new-venture context. The literature review also addresses behavioral ecology application to business and an understanding of passion and preparedness as a key antecedent to new venture success. Chapter 3 includes the theoretical background supporting each of my four hypotheses, specifically the primary hypothesis regarding the existence of a climate for funding, followed by the impact of three facets on new venture success upon interacting with passion and preparedness. Chapter 4 concerns the methodology, participants, and protocol used for the research as well as the measures and analytics needed to describe the outcomes. Chapter 5 presents results and statistics from collected data, including a confirmatory

factor analysis, internal consistencies, and bivariate correlations. Chapter 6 concludes the study with a discussion of the findings, including my overall interpretation, theoretical and practical implications, the limitations of this research, avenues for potential future study, and, finally, my conclusions.

CHAPTER II

LITERATURE REVIEW

This study was designed to discover the most successful financial marriage between a business entrepreneur and a funding source by exploring how a climate for funding might exist and determine if that climate has significant impact on the level of business success. The 2014 U.S. Bureau of Labor Statistics showed that new businesses beginning between 1994 and 2010 have less than 50% survival rate after 5 years, and fewer than 30% remain viable after 10 years. Given this level of risk for new venture success in the marketplace as the typical outcome for startups, an understanding of the successful interaction between funder and entrepreneur is a significant gap worthy of further study.

Using the existing literature to guide this project's new contributions to the scholarly conversation on distinctly separate but related styles of funding named *facet-specific climates,* I have focused in this literature review on four key content areas prevalent in the current research. I will discuss each in turn in this chapter. The first construct is psychological climate (Glick, 1985), in which both foundational and specific forms of climate are contrasted with culture. Climates relate to the interaction between funder and entrepreneur and their respective perceptions of the environment, whereas the

culture construct centers around established values and reward systems. The second area is the behavioral ecology of predatory behaviors (Barbaso & Castellanos, 2005), which frames the foraging and consumption activities of animals as three categories of hunting styles. The third is behavioral ecology of business, which relates animal population fluctuations to general business principles. The last construct is entrepreneurial passion and preparedness (Chen, Yao, & Kotha, 2009) as perceived by the funding source from cognitive, affective, and behavioral perspectives.

Climate (Psychological vs. Organizational)

Because it is important to understand how the entrepreneur's and the funder's perceptions, beliefs and impressions about each other affect the relationship and potentially the outcome, an examination of the climate inside a particular environment is essential. While this research will focus predominantly on the psychological climate construct, a discussion of both individual (psychological) climate and unit (organizational) climate constructs is necessary to disentangle the ongoing academic debate over the most reliable unit of theory and analysis challenges in aggregating individual data. James and Jones (1974) advocated for distinguishing psychological from organizational climate to determine the interaction between conditions of the organization and various individual characteristics that lead to a particular perceived or psychological climate. Further, they promoted the concept of using two sets of variables as a means of predicting both individual attitudes and behaviors at the organizational level.

Organizational climate and psychological climate should be retained as useful categories of variables for multidimensional assessments of individual-organizational relationships (Glick, 1985). Researchers are encouraged to use dimensions likely to be

associated with their studies' criteria of interest, as demonstrated in Parkington and Schneider's work in 1979 on service climate and Zolar's climate for safety research a year later. Schneider and Reichers (1983) argued that work settings have different climates for specific issues like safety, service, production, security and quality (Glick, 1985).

Organizational Climate

For over the last half century, climate has been a focus of organizational psychology, beginning with the 1939 social climate study by Lewin, Lippit, and White. Ostroff, Kinicki, and Tamkins (2003) described organizational climate as an "experientially based description of what people see and report happening to them in an organizational situation". Similarly, Schneider et al. (2012) used the term to refer to the perceptions and the meanings attached to policies, practices, and procedures employees experience and behaviors they observe that the organization supports, expects, and rewards.

Researchers have approached climate from two distinct perspectives. The first is an individual's cognitive representation of the environmental surroundings, which is significant to that individual, a cognitive schema approach (Ashforth, 1985; James & Jones, 1974; James & Sells, 1981). This 'ambience' of an organization (James & Sells 1981) refers to results from various patterns of influence on employee behavior generated by predominant conditions in the organization. The second perspective emphasizes the impact of a shared perception (Koys & DeCotiis, 1991; Payne, Fineman, & Wall, 1976; Uttal, 1983) of organizational policies, norms, and protocols of 'how it works around here' (Schneider, 1990).

Climate is further partitioned by researchers in two forms: (a) foundational, which embodies a larger shared perspective of an environment, and (b) specific, which encompasses only a specified area of interest such as safety, service, and so forth. Considering the broad-specific differentiation, climates can also change across levels of analysis (Wallace & Chen, 2006). Schneider (1990) suggested research be conducted according to specific climate components important to an organization. Accordingly, this study focused on a subset of the funding environment which deals specifically with funding climate. I developed a behavioral ecology-based taxonomy to describe funding climate and closely align the predatory styles as described in behavioral ecology literature (Barbaso & Castellanos, 2005), as detailed in the next section of this literature review.

Climate and Culture

Contrasting culture characteristics from those of climate, culture may be assimilated from five components: values, beliefs, myths, traditions, and norms (The Kennedy Group, n.d.; Schneider, 1990; Schneider & Reichers, 1983). Unlike culture, climate focuses on the perceptions of those engaged in the environment. Using results from a global innovation survey, investigators found that those organizations with better scores on the climate dimension had higher levels of growth in market capitalization, revenue, and profitability (West, 2002). Climate is also distinguished from culture, which uses the basic assumptions, values, and beliefs that characterize a setting. Cultures are taught to newcomers as a proper way to think and feel, communicated by myths and stories people tell about how the organization came to be the way it is as it solved problems associated with external adaptation and internal integration (Trice & Beyer, 1993; Zohar & Hofmann, 2012).

Both climate and culture constructs have traded positions of importance over the past several decades, with organizational climate dominating the research on human organizational environment through the 1960s and 1970s and subsequently moving to the background in the 80s through the 1990s. However, in the first dozen years of this century, journal articles from *The Academy of Management Journal, Journal of Applied Psychology,* and *Personnel Psychology* using climate as one of their primary variables eclipsed those using culture 5 to 1 (Schneider, Ehrhart, & Macey, 2012). During this time, Gonzalez-Roma et al. (2014) concluded that climate is related to financial performance. Climate's ranking on a hierarchical scale for both funding sources and management team has risen from the acknowledgement of a realized effect that climate can have on new venture success. I designed my research to contribute to knowledge on this topic by introducing a measurable construct that defines management team members' perceptions of their team's funding source (funding climate), thereby increasing the chances of early venture success in the team's business.

Psychological Climate

Climate has been widely researched for decades with its foundation based on social climate definition beginning in 1930s followed by numerous opinions varying significantly over the past 40 years (Campbell, Dunnette, Lawler, & Weick, 1970; Schneider & Reichers, 1983; Rousseau, 1988.) In pioneering the human relations movement, Hawthorne turned researchers' attention to the soft psychological environment inside organizations ("Hawthorne effect," n.d.). This aspect of climate research is limited to those experiences and perceptions of individual or person level, not at the higher group or unit level of assessment. Despite the observance of many

contextual variables identified as influencing business success, many scholars have stressed the importance of climate (Amabile 1996; West 2002). There is sufficient research supporting the notion that workplace climate can positively relate to job performance (Baer & Frese, 2003; King, De Charmont, West, Dawson, & Hebl, 2007). Research in the climate domain has been able to discriminate between good and bad work environments, high and low performing work teams, and the perceived level of support (Isaksen & Ekvall, 2010). Climate dimensions (e.g., safety, service, innovation, involvement) have shown positive relationships to a number of outcome variables including higher sales volume, market share, productivity and profitability, reported greater impact from implementing new social and technical systems and improved ability to implement more complex work design (Kuenzi & Schminke, 2009).

Current research provides insight into the impact climates have on the organization, teams, and individual employees. However, little research has been performed studying funding climate. In this study, I conceptualized funding climate as the perception of an organization's funding source as perceived by a member of the management team and not the shared perception of the entire team. It is my belief that the funding climate can affect a company's performance, particularly that of a new venture. I designed my research to expand the characterization of the funder based on the perceptions of those individuals engaging with these funding sources, specifically a member management team.

Past research has classified the organizational environment into four dimensions: ecology, background, social systems, and culture (Zhang, 2010). The science of ecology studies interactions between individual organisms and their environments. Ecology

theory has been used in many areas of business including economics, strategy, and organizational behavior. This connection resulted in my use of ecology theory in this study to define and describe the funding climate. In the next section of the literature review, I discuss the ecology of predator behavior.

Ecology of Predatory Behaviors

Theories from ecology have been used in various business applications to provide a better understanding of business behavior. The Lotka-Volterra biological predator-prey model, for example, has been used by venture capital investors to help explain puzzling cycles similar to those seen in wildlife populations (Brander & De Bettignies, 2009). Comparisons to predator-prey behavior have been used in economic research in understanding oil prices and impact on the economy, copyright piracy, and investing and consumer behavior (Andreoli, 2011; Burd, 2010; Vazquez & Watt, 2010; Wells 2012). However, little, if any, research has been devoted to understanding the impact of individual behavioral perceptions of funding sources as perceived by management teams' members to achieve venture success. Applying behavioral ecology and foraging theory to this context of funding perceptions provides a framework for understanding the strategic feeding and consumption behaviors of animals in the wild including behaviors such as search, identification, procurement, handling, utilization, and digestion (Wells, 2012).

Early 20th century modernism proclaimed the natural world as fully deterministic, facilitating formal logical reasoning and allowing decision optimality to include financial economics. Current research, however, has demonstrated that a nondeterministic natural world exists in which humans and other animals have decision-making brains naturally

focused on "sufficing," which leads to survival and adaptation (Olsen 2009). Peters (2001) and Omerod (2001) offered evidence supporting the same paradigm in the context of financial markets. Predator-prey interaction studies have shown predators can impact prey consumption through predator-induced alterations in foraging, habitat use, morphology and other consumptive and nonconsumptive effects (Presisser, Orrock, & Schmitz, 2007). Animals tend to forage in a loss-aversion technique, searching for food to minimize their risk of obtaining insufficient nutrients and only altering feeding "patches" to meet their needs (Beckoff & Jamison 1996; Dawkins, 1993; Page, 1999). Spatial heterogeneity and dynamic landscape (patches) significantly change the interaction between predator and prey, relating to the concept of 'functional response' theory of predation in which efficiency is affected by both predator and prey density (Gorini et al., 2012; Holling 1959; Nachman, 2006). These predator-induced alterations are actually unique hunting modes.

Predators and Hunting Modes

Research in the concept of predator hunting modes classifies predators into three distinct hunting modes: active (ACT), sit-and-pursue (SAP), and sit-and-wait (SAW; Barbosa & Castellanos, 2005.) Foraging behavior studies have proliferated for decades to include seminal documents by MacArthur and Pianka and by Emlen, introducing the optimal feeding theory (OFT), which identified benefits and costs of various modes of hunting from SAW to "widely foraging" or more active modes of predator behavior (Perry & Pianka, 1997). These hunting modes have significant similarities to various types of funding source behaviors.

As noted above, predators can be classified into three broad categories: active, SAP, and SAW (Barbaso & Castellanos, 2005). Active predators continually patrol for prey by aggressively searching their environment and outside their traditional habitat boundaries. Sharks, shrews, and jumping spiders demonstrate characteristics of active predators. Sit-and-pursue predators, perched and ready, typically wait for their prey to approach, either by ambushing or by waiting for prey to come close enough into range to pounce. The SAP predator may change location upon depletion of prey in a particular area. Hawks, leopards, and wolves demonstrate this type of predatory behavior. The third type of predators is the SAW. They remain in a fixed location for extended periods, waiting for the prey to pass by their location. These predators do not often change locations, regardless of the temptations to obtain immediately available prey or the dearth of opportunity driving extended waiting times. Crocodiles and snakes act with this type of behavior. For this study, I proposed these three forms of predatory behavior are similar to the various styles of funding sources that a business team may experience while attempting to propose and explain their business plan ideas.

Quinn and Cresswell (2004) suggested vulnerability can be theoretically assessed by the predator reducing the variability of hunting success. The vulnerability of the prey is considered to be at its highest level when prey is under "energetic stressors." Increases of these stressors arise in temperate regions or during high winds, draining predator energy and reducing focus by expending resources towards antipredation. The energetic stress levels rise when the prey are forced to feed in areas good for foraging but with inherently high predation risk. The feeding is good for both the hunter and the hunted, as is the risk for survival. Foraging theory can be applied to understand human foraging

behavior in both ancient and modern hunter-gatherer populations in anthropological settings studying human behavior (Wells, 2012). Similar behaviors can be exhibited by funding sources while seeking organizations that could benefit from their financing services.

Applying Behavioral Ecology to Business

In examining how predatory animal behavior relates to business, the Lotka-Volterra equation, or the predator-prey theory, has been applied to explain cycles in animal population fluctuations. The structure of predator–prey models is also clearly presented in standard textbooks on differential equations (Brander & Bettignies, 2009). This model has been utilized and applied in general economic principles, oil pricing, environment economics, optimal harvesting rates, and labor economics and union bargaining. Anderton (2003) used a hawk and a dove model to frame styles of predation and protection metaphorically, describing "viable economic activities ... and exchange within the encounters of the game" (p. 15). This figurative technique to depict aggressive and passive animal hunting implies that a mutually beneficial exchange can occur between predator and prey (funder and entrepreneur) that can overcome what would otherwise be a struggle between these two economic agents (Anderton, 2003). The behavioral ecology of consumption (BEC) model applies mathematical modeling of the optimal foraging theory to human consumption for applications in capital investment behavior (Rajala & Hantula, 2000).

Building on the behavioral ecology literature concerning predator-prey relationships, I posited in this study that the funding climate is comprised of three similar factors. Active funders (i.e., sharks) demonstrate attributes such as aggressively

pursuing, investigating, and analyzing new venture opportunities to actively engage. Sit-and-pursue sources (i.e., hawks) tend to remain perched while passively observing potential funding opportunities and actively engage only when an appropriate venture happens across their desk. Finally, SAW funders (i.e., crocodiles) passively observe and admire possible funding opportunities while waiting for a suitable new venture that meets the funders' specific requirements to fully present itself. In this study, I expected that the facet-specific funding climate, defined as management team members' perceptions of an organization's funding source, would be comprised of the three primary factors: (a) active, (b) SAP, and (c) SAW.

Each of these factors has advantages and detractors based on the time and energy devoted to prey after it has been acquired before any energy (return) can be seen (Wells, 2012). Foraging theory has used the principle of goal optimality as described by Charnov (1976). DiClemente and Hantula (2002b) used Stephen and Krebs' (1986) three-component model to include decision assumptions of when to leave a 'patch' and hunt elsewhere; currency assumptions as measured in energy gained for time spent; and ecology constraints, referring to the amount of time spent foraging. Funding sources may be driven by cycles in the market to adjust their styles. McEwan (2007) applied the fox, rabbit, and grass analogy to Darwinian principles of feast and famine in a particular investment 'patch' to discuss the decision-making process funders undergo in maximizing return on investment. Behl stated, "The market has changed, it is now a mature funding market that is hyper-competitive and fragmented" (N. Behl, May 22, 2013, personal communication). Behl indicated there is a set procedure depending on cycle and environment, and these procedures dictate how stakeholders react to venture

opportunities. Behl continued, "There is a lot of deal flow and cash is green and everyone has it, what counts is the people" (N. Behl, May 22, 2013, personal communication). This perception leads me to believe that defining the funding climate utilizing the hunting mode theory has great promise.

Passion and Preparedness

The relationship between a management team's passion and preparedness and its venture's funding source has been identified as a critical indicator of success (Chen et al., 2009). While funding climate affects the techniques used by funder and management team, both cognitive and affective states of intensity play roles as well. Chen et al. (2009) referred to this affective state as entrepreneurial passion. The perception of passion is key to bringing a new business plan to life in persuading a funding source to support that plan. A funding source's perception or 'gut feel' is relied upon heavily to distinguish the entrepreneur's personality and background, the characteristics of the management team, and the interpersonal chemistry between the two (Riquelme & Watson, 2002). Entrepreneurs' technical, personal, and interpersonal capabilities can make a last impression (or a mental map) on the personal aspect of the funder's assessment (Chen et al., 2009). This 'fire in the belly' (Smilor, 1997) is the most observable trait of any in the entrepreneurial process. Passion drives entrepreneurs to cope with inevitable risk and resource uncertainty inherent in new ventures (Timmons,Schuster, Moloney, 2001). Baum and Locke (2004) pointed out that while while empirically there is no relationship between passion and enterprise growth, they discovered significant indirect and mediating effects between the two. Three themes emerge in entrepreneurial passion: intense positive emotion, directed venture-related

opportunity, and motivation to overcome obstacles, (Cardon, Wincent, Singh, & Drnovsek, 2009). Each of these themes addresses a different dimension of the passion construct. Deeper analysis offers two more descriptive contexts of passion: obsessive passion, associated with pressures of the workplace, and harmonious passion, which is emotionally driven behavior associated with voluntarily internalization (Amiot, Vallerand, & Blanchard, 2006; Vallerand et al., 2003).

Social psychologists explore passion as a motivational construct with affective, cognitive, and behavioral components (Vallerand et al., 2003). Two of these aspects are observable in the persuasion process: passion as evidenced by the emotion displayed while interacting with funding sources and preparedness as observed as the level of thinking and reasoning used to form the essence of the entrepreneurial idea. Baron (2008) labeled only the affective aspect of the passion construct as passion and the cognitive aspect as preparedness. The third component, behavior, remains to be determined only if the project gets off the ground.

The interaction between funder and management team has both qualitative and quantitative aspects that can be addressed in series or in parallel. Specifically, how the management team's passion contributes to the funding source's decision is similar to the extent to which the team's preparedness affects the funding agency's determination. Hence, a reasonable question arises: Are these two aspects most accurately examined separately or together? There are arguments for dual-process approaches, with Chaiken, Liberman, and Eagly (1989) extolling the virtue of two qualitatively different routes, and a "unimodel," put forth by Kruglanski and Thompson (1999) who contended that a logical presentation of argument requires a style of heuristics and cues, thus using both

motivational and cognitive abilities. Management teams that are transmitting relevant information in a technique that does not appeal to the receiving funding source would not yield success under the unimodel construct. However, under the dual process theory, the message and the messenger's technique are separately considered. In either construct the communication dynamics between funding (predator) and management team (prey) depend on the hunting classifications discussed in the previous section.

One goal of this study was to expand the breadth of knowledge concerning the effect funding climate has on a funding source's ability (or desire) to attract and develop a relationship with the management team. In Elsbach and Kramer's (2003) work with Hollywood studio executives' and producers' investment funding decisions, watching an unknown screenwriter's passion and creativity as they 'pitched' their story fed two data sources—the nonverbal cues (affective) passion construct and the content of the script (cognitive) preparedness—in leading to a determination of whether or not to invest. Evidence of passion demonstrated by the entrepreneur and style of the presentation in addition to what was perceived and experienced by the funding source was associated with the future success of the venture and had measureable elements related to both content and presentation process (Galbraith, DeNoble, Ehrlich, & Horowitz, 2013). Russell (2003) work postulated that completely catalyzed passionate emotion engages the brain with appraisals and cognitions that appear as coherent and coordinated patterns maintained over time, facilitating an entrepreneur's efforts to adapt and cope with environmental changes. These are also passion and preparedness qualities that can lead to new venture success (Cardon et al., 2009).

Summary

This literature review included discussions of individual/psychological and unit/organizational climate constructs and distinctions between climate and culture in the context of establishing successful relationships between entrepreneurs and funders. It also addressed the application of behavior ecology to business and the value of passion and preparedness in the funding relationship. The next chapter presents an overview of the conceptual model central to this study of the impact of funding climate on new venture success.

CHAPTER III

CONCEPTUAL MODEL

Theoretical Background

The theory that guided this study concerns the process of aligning shared perceptions of entrepreneur and funder in a "marriage," of sorts, with effectiveness measured in terms of new venture success. According to De Clercq et al. (2006), regardless of techniques, each funding relationship needs to fit with the expectations and style of the funder and the business leaders. To fully examine the funding relationship and expectations of it in business contexts, it is reasonable to understand the environment and climate of the marketplace in which these exchanges take place.

The first premise is that there is a funding climate made up of three behavioral factors, each drawn from animal hunting/foraging behavior documented in the wild. Second, entrepreneurial passion interacts with SAP and SAW funding climate factors to yield increased levels of new venture success. The third premise is that preparedness and ACT funding climate will interact, yielding higher levels of new venture success. Lastly is that passion and preparedness will interact with each other and the SAW funding climate to yield the highest level of new venture success. In Figure 2, I illustrate that the

three funding climate factors represent key contextual influences on the outcome of new venture success as predicted by passion and preparedness. Below, I provide details on these hypotheses.

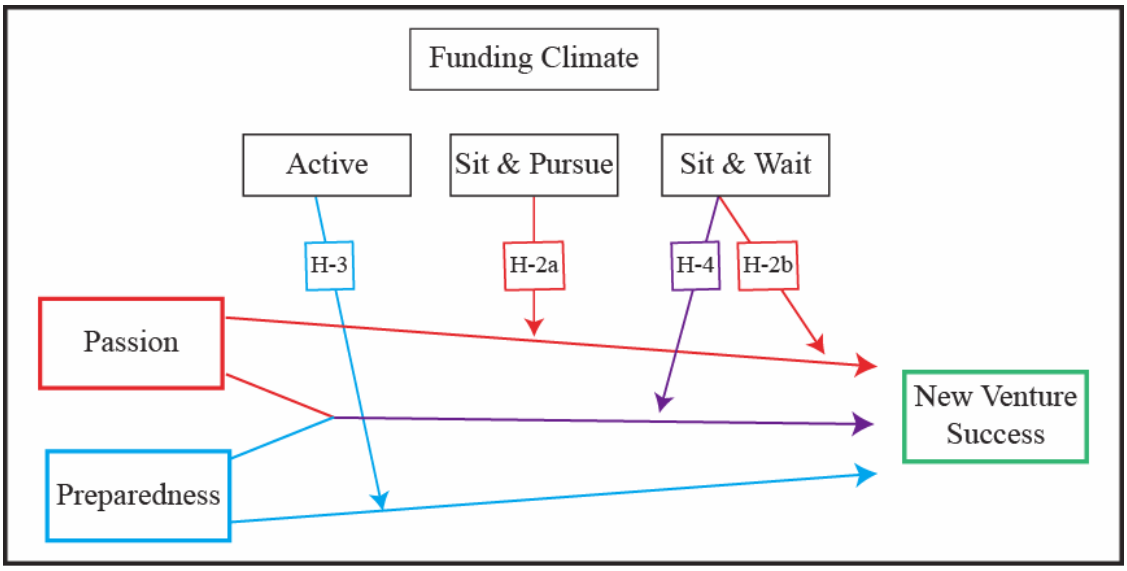


Figure 2. Connection among hypotheses and funding climate factors.

Hypothesis 1

Significant literature exists on entrepreneurs' behavior related to attaining new venture success (Baum & Locke, 2004; Elmuti, Khoury, & Abduhl-Rahm, 2011; Wang, 2008). According to Aldrich and Wiedermayer (1993), personality traits, organizational factors, and environmental factors are related to new venture success. There is very little in the literature written on funding sources or their interactions with entrepreneurs in relationship to success. In seeking to address this knowledge gap on funding sources, I built from the theory of "fit" between prospective funders and entrepreneurs (Parsons, Cable, & Wilkerson, 1999) because person-organization fit will be important to the

success of the organization when assessing specific values. Researchers seem to understand well documented entrepreneurial values and behavior as they concern new venture success, and measuring new venture success is relatively straightforward. Elmuti et al. (2011) highlighted financial indicators such as increased sales, revenue, increased venture capital, and profitability, and Coulter (2003), Kaplin, and Warren (2010) identified new venture effectiveness indicators as increased customers, products, and employees.

My research serves to address a gap in the literature on funding source behavior in a relationship by introducing a measurable construct that defines the perceptions that a management team has of its funding source—that is, by introducing a measure of the funding climate. Additionally, I arranged to validate this construct by examining the potential moderating effect of the funding climate on the level of new venture success of entrepreneurial management team's passion and preparedness. Metaphorical parallels exist between funder and predator as well as between entrepreneur and prey, which are demonstrated as general economic principles (Brander & Bettignies, 2009). Further, as described in the literature review, the ecological feeding behaviors (i.e., animal foraging and hunting behaviors) offer a framework to examine the environment in which entrepreneurs and funding sources interact in searching, identifying, and procuring resources (Wells, 2012) and in acclimating to different environments. I submit that the prey in this framework must logically thrive and continue to produce economic value. In examining this construct, predators can be classified into three broad categories based on behavioral ecology models: active, sit-and-pursue, and sit-and-wait (Barbaso & Castellanos, 2005). I expected to find these three distinct yet correlated factors as

perceived by the entrepreneurs comprising my funding climate framework (as shown in Figure 1). I supported this expectation by having examined the characteristic behaviors of three distinct types of funders and their associated acceptance of different levels of risk, level of involvement with the management team, and ease of coming to an agreement (De Clercq et al., 2006).

In describing the process of acclimating to a particular environment, I posit that the individual perception of climate adaptation or, in other words, the process of adjusting to the climate of a particular environment, may hold great promise. Specifically, I conceptualize 'funding climate' as a management team member's perception regarding the organization's funding source. In examining predator and prey behavior modes, a modicum of figurative expression is in order to describe the animal-like activity of the funder. Anderton (2003) used a hawk and dove analogy to contrast between the two hunting modes of aggressive versus passive predator behavior, which can also be seen in the economic marketplace. By framing predation (active shark behavior) and protection (sit and pursue or wait behavior) as viable economic activities, it allows for exchange within encounters of the (economic) game. In these activities and perceptions by the entrepreneur of the funder, a kill is not literal but rather a figurative way to describe the success of the funding source (predator) in seeking and obtaining the right entrepreneur (prey). Hence, I propose the following hypothesis:

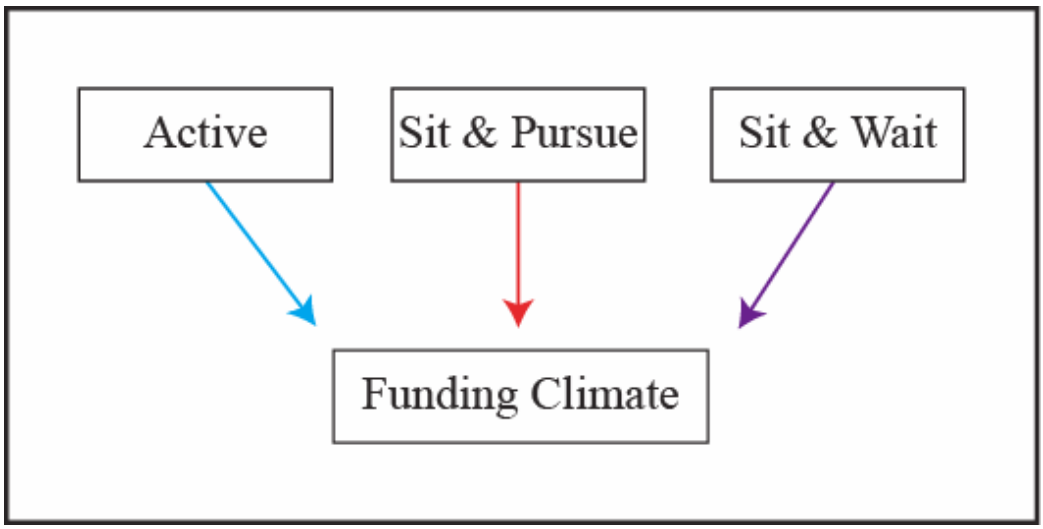


Figure 3. Hypothesis 1**.** Funding climate consists of three distinct but related facets: (a) active, (b) sit and pursue, (c) and sit and wait

Passion and Preparedness Toward New Venture Success

To begin examining the role passion and preparedness plays in the interaction between a prospective entrepreneurial management team and a funding source toward new venture success, it may be helpful to use the well documented person-organization fit (POF) framework. Kristof (1996) defined POF as "the compatibility between people and organizations that occurs when: (a) at least one entity provides what the other needs, or (b) they share similar characteristics, or (c) both" (p. 4-5). According to Cable and Judge (1996), POF is the subjective perception emanating from the congruence between one's values and one's perception of the organization with its own values. As funders seek potential entrepreneurs to invest in and sign onto their portfolios, a proper "fit" may prove helpful in developing the match. Schneider (1983) theorized an attraction-selection-attrition (ASA) model in which people are differentially attracted to organizations on the basis of a kind of fit between "personal and organizational" characteristics. These three processes— attraction, selection, and attrition—result in

organizations including people with similar personalities, a diversity responsible for the unique structures, processes, and cultures that characterize organizations (Goldstein & Smith, 1995) Using this ASA framework along with the POF model, the research shows that "when individuals are engaged in recruitment activities and receive recruitment messages from hiring organizations, they start assessing whether those organizational attributes are similar to their own personal characteristics" (Yen, Murrmann, & Murrmann, 2011, p. 318).

Using the POFand ASA framework, I draw parallels between the entrepreneur and the "person" as well as the funding source and the "organization". This alignment helps to further describe and examine those interactions resulting from a manager's passion and preparedness. Building off the POF framework, I connect passion and preparedness with funding climate to explain new venture success. I believe the differences in levels of passion as shown in Figure 4 describe its result toward new venture success considering the effects of SAW and SAP funding climates. Specifically, I am interested in how increased passion of a member of the entrepreneurial management team complements the cautious behavioral characteristics of the slower, more deliberate and analytical funding source by offsetting the weaknesses of both sides and addressing the exposure of the other's neglected flanks.

Hypothesis 2

Much has been written about the significant role in entrepreneurial success that passion plays (Chen et al., 2009). I designed my research to expand the knowledge of what effect funding climate has on a funding source's ability to attract and develop a relationship with an entrepreneur. The literature establishes passion and preparedness as

one of the most observable traits of any in the entrepreneurial process (Smilor, 1997), with the 'fire in the belly' descriptor representing a helpful metaphor for understanding the business entrepreneur. One of the aspects worthy of consideration is the degree to which passion interacts with the Sit and Wait climate on the path to new venture success.

ASA proposes that organizations will differ in structure and culture (a) because of the differences in the personalities of the people in those organizations and (b) because those organizations will attract different kinds of people (Cable & Judge, 1994). Because of this support in the literature, I posited that the higher the level of passion demonstrated by a member of the entrepreneurial management team, the higher levels of new venture success. This phenomenon is a result of the sit-and-pursue and sit-and-wait funding climates' contemplative and analytical styles, which complement the managers' affective behavior to yield increased cognitive analytics, which, in turn, result in higher levels of new venture success. Building from the theory on conservation of resources, the cautious funders, while focused on not losing the existing resources they have, may actually feel more comfortable with the gains described by the passionate entrepreneurs as better use of physical and socioemotional resources (Halbesleben, Neveau, Paustian-Underdahl, & Westman, 2014). Extension of the socioemotional resource construct demonstrates that the conditions by which a funding firm may invest money toward a resource (the entrepreneur) would depend on the value that firm placed on that resource in gaining more than the risk of losing what they have (Schmidt & Keil, 2013). Thus, I proposed the following hypothesis:

H2a: Passion and Sit and Pursue funding climate will interact in a way to lead to increased new venture success when both Passion and Sit and Pursue are high.

H2b: Passion and Sit and Wait funding climate will interact in a way to lead to increased new venture success when both Passion and Sit and Wait are high.

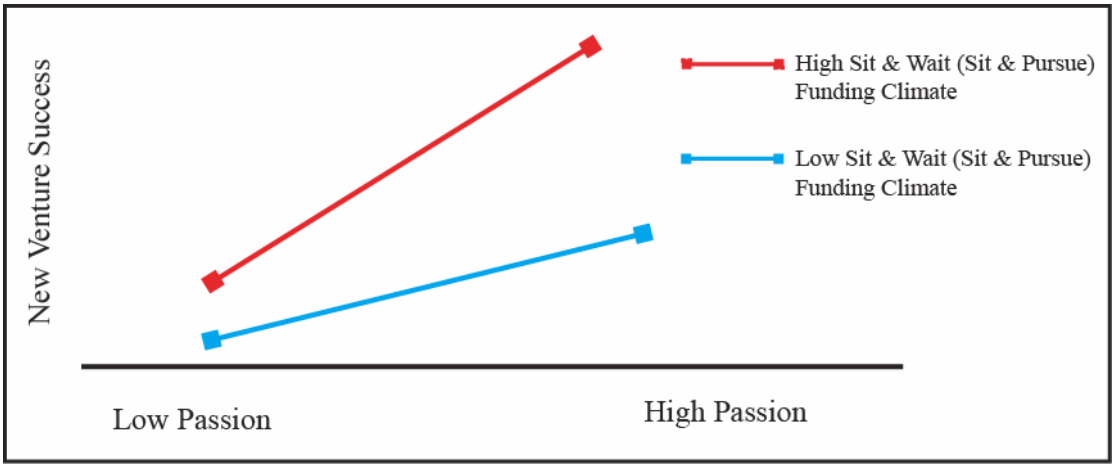


Figure 4. Hypothesis 2.

Hypothesis 3

In dividing the passion and preparedness model from a behavioral perspective, Baron (2008) cited preparedness as the cognitive aspect, using the quantitative elements of a management team's ability to use logic, math, and science in developing proposed business plan content. Some social scientists have claimed that the content cannot be 'heard' by the funding source without the affective qualitative aspects of that delivery being aligned simultaneously (Kruglanski & Thompson, 1999). Other research has revealed that two paths are essential in delivering the business plan concept (Chairken, 1989).

In this study, I posited that active funding source (shark) behavior is characterized by aggressively dashing from one target opportunity to the next using more affective

based reasoning. This approach will resonate with and complement the more studied, analytically based preparedness characteristics because of a symbiotic balance brought by the cognitively oriented entrepreneur. My theory is supported by Russell's (2003) research regarding completely catalyzed passionate emotion engaging the brain with both appraisals and cognitions, addressing both sides of the brain function for content analytics and affective heuristic activities.

The literature on entrepreneurship indicates that both affective and cognitive behavior traits are necessary for new venture success. These two diametrically opposed forces, as illustrated in shark funder interacting with the analytical "geek" entrepreneur behavior, may be observed as a volatile yet effective combination of characteristics. The fast acting funding source may be keen to market conditions, sensing the moment to act on a particular business plan, while the entrepreneur has a more deliberate and science-based approach to preparing for a deal he or she deems acceptable to launch. Further, according to Schneider (2001), most studies on fit between individuals and their environments, including organizations, are based on "a Western tradition, dominated by an emphasis on the individual and on personal satisfaction/gratification" (p. 148), which would apply to both active funding sources and more cautiously highly prepared management teams. As in Hypothesis 2, each side again covers the potentially exposed weakness of the other with a complementary skill set. Given this relationship interaction, I proposed the following hypothesis:

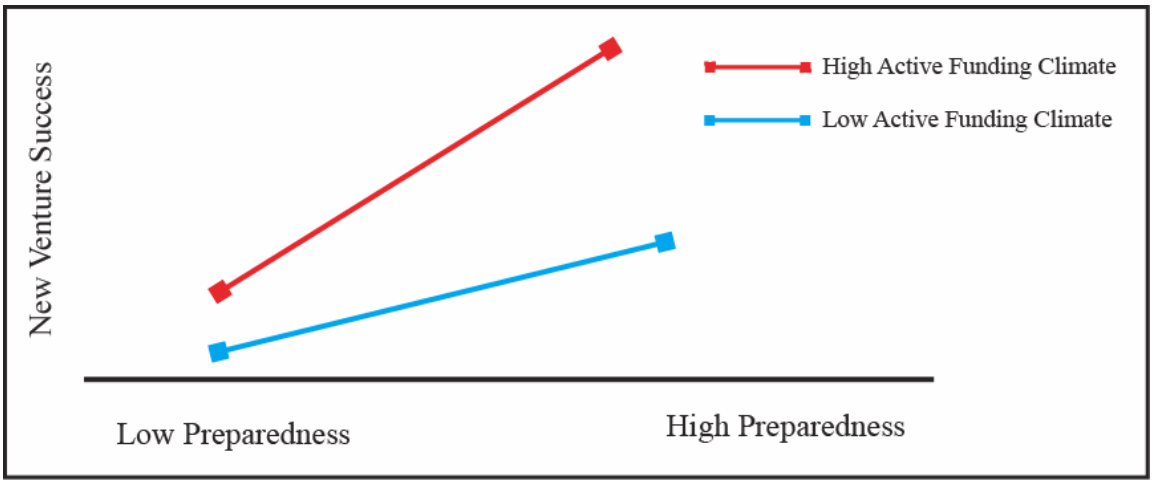


Figure 5. Hypothesis 3. Preparedness and Active funding climate will interact in such a way to lead to increased new venture success when both Preparedness and Active are high.

Hypothesis 4

The unimodel theory (Kruglanski & Thompson, 1999), which regards effective persuasion techniques as traveling on one path together with both qualitative heuristics as well as quantitative cognitions, reinforces the effects of style or climate for transmitting tangible content information and receiving affective heuristic messages between the sender and receiver. I posited that there is an interaction along this single path between passion and preparedness that will interact positively with the SAW factor of the funding climate toward new venture success as shown in Figure 6. The characteristics of the sit and wait factor of the funding climate model recalls cautious and rigorous analytical behavior on the part of the entrepreneur along with patient and careful assessment techniques by the funder in examining the business plan details, while fully appreciating the stylistic heuristic cues offered back and forth during the exchange between funder and entrepreneur. The sedentary crocodile foraging/hunting behavior is an apropos mental map for assimilating this path to new venture success. Both the material content and

delivery style of the entrepreneur's presentation will interact, revealing measurable elements related to passion and preparedness associated with new venture success (Galbraith et al., 2013).

Hence, I offer Hypothesis 4 as representing the highest level of new venture success. This model offers both cognitive and affective balance from the management team's perspective and interacts most positively with the Sit and Wait (crocodile) funding climate factor, which favors quantitatively based lowest risk caution levels before entering into the new venture. Supporting this premise about the SAW factor of the funding climate from Chapter 2, Galbraith et al. (2013) determined that funding sources will form heterogeneous business plan review panels capable of examining all aspects of a prospective business plan before actually investing. These multifaceted panels are made up of subject matter expert (SME) disciplines, such as technical, equity, service, bankers, and so forth, to expand the knowledge base of the prospective management team where the perceptions of the presentation's technical aspects as well as the presenter's style are evaluated. Chen et al. (2009) pointed out that thorough preparation of the business plan as described in the cognitive dimension of the passion construct is an effective technique to present the management team's creative thinking. Thus, I proposed the following hypothesis:

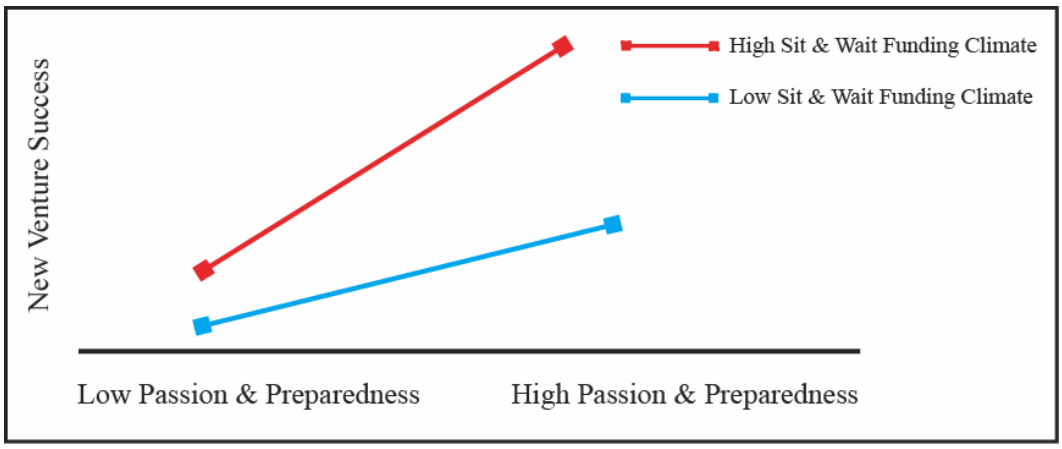


Figure 6. Hypothesis 4. Passion and Preparedness will interact with each other and interact with Sit & Wait funding climate in such a way that new venture success will be highest when Passion & Preparedness and Sit & Wait are high.

Summary

In this chapter, I presented details concerning this study's theoretical framework and hypotheses. In the next chapter, I will present more information about the projects methods, including data collection and analysis procedures and protocols followed to ensure participants' confidentiality.

CHAPTER IV

METHODOLOGY

This section includes explanations of the testing methods for the study's four hypotheses. It also provides details about the survey instrument, the criteria and protocol for selecting participants, and the measures and data analysis procedures. I followed Hinkin's (1998) guidelines in completing the scale development process to include item generation, an initial item reduction via content validity (see Appendix B), internal consistency and confirmatory factor analysis, and finally construct validity. My technique utilized a deductive approach to item generation based on the theoretical foundation established in the literature.

Pilot Study and Survey Validation

The preliminary list was developed by an executive research team participating in the OSU Executive PhD program. In spring 2012, I piloted 45 items across the three dimensions of a funding climate. The first group of participants selected for the scale development process consisted of 10 industry experts from funding source companies and 31 executives from varied Midwestern business industries across the United States. The preliminary items (45) included 16 statements that I felt described the first construct, active (shark), with characteristics associated with aggressive searching behavior. The

second construct, Sit and Pursue (hawk), had 16 items concerning activities that would characterize a more patient and conservative searching behavior. The third construct, Sit and Wait (crocodile), had a list of 13 defining items probing for characteristics that might reveal a considerably more cautious and risk adverse approach. Of 41 participants asked to perform the sorting exercise, I received four from funding agencies and 22 from business executives. This survey validation was sent via email to the industry experts from the funding agencies, and business executives were given a paper-and- pencil copy to fill and return for my examination. Next, I looked at the scale properties, testing for internal consistency and confirmatory factor analysis. I then tested *H*2 through *H*4 using multiple moderated regression.

Participants and Protocol

To test *H*1, I invited MBA entrepreneur students to participate from the Oklahoma State University and the University of Calgary. These students had experience in fundraising efforts to keep within the domain of the study. The second data set tested the basic premise of the existence of a funding climate as described in *H*1 with a wider but not necessarily business savvy population. A convenience sample of 500 respondents from the online service MTurk was used to increase the sample strength power. Respondents were be anonymous and compensated nominally (75 cents) for responding.

I tested *H*2 through *H*4 with entrepreneurial practitioners all active in seeking funding. The individuals participating were from newly formed companies and comprised members of the entrepreneurial management team's top leadership. They included founders, presidents, and both operating and financial top tier leaders. In some cases these managers had multiple roles (i.e., president and COO; founder and CFO).

The titles, however, mattered less than the new ventures that have a new idea, design, or product to launch into the market. Generally the team is comprised of the executive who sits at the head along with the finance leader and the top operating leader. In smaller start-ups the lead executive could also fill the role of lead financial expert, lead operational expert, or both.

The target is 50 paired surveys from a new or expanding entrepreneurial company surveying decision makers that have direct contact and firsthand knowledge of the negotiation between their company and the funding source. The select members of the entrepreneurial management team will complete the survey on passion and preparedness, funding climate, and demographics. The study was conducted with individual members from the executive, operations, and finance areas. New Venture Success surveys were collected from 50 paired "judges" inside the funding source who may be providing funding to each responding entrepreneur on the funding climate and passion and preparedness surveys. This survey information will remain strictly confidential, securely stored and only available to me. All risks from the scale were determined to be no higher than those typically encountered throughout the daily course of business, and zero compensation was offered for their participation.

Measures

Funding climate was measured using 22 items on a 5-point scale from *strongly disagree* (with statement), *disagree*, *neither*, *agree*, or *strongly agree*. With these data in hand, I assessed an interitem correlation, removing any items that correlated at less than 0.4. This step ensured that the remaining items belonged to a facet of the funding climate domain. I also ran multilevel confirmatory factor analyses to examine the factors'

structure, item-loadings, and overall fit of the funding climate variable. With these analyses, I fully assessed Hypothesis 1 using modification indices to identify poor items and remove them.

Passion and preparedness were measured using 17 items on a 5-point interval scale from *strongly disagree* (with statement), *disagree*, *neither*, *agree,* or *strongly agree*. I used the measure originally created by Chen (2009).

Companies under analysis were in one of three developmental stages. Stage 1 (The New Idea) includes organizations in the earliest development, when the very first contact is made with potential funders and the basic business plan is discussed in simple terms of the presenting problem/opportunity and the proposed solution idea. Companies in Stage 2 (Incubator) have the initial seed money with product in the market and are looking to advance the scale, at which point a robustly populated roadmap is developed with key milestones for success. Finally at Stage 3 (Accelerator), the road map to success is expanded for companies to pursue full scale production techniques and advance mentoring. A businesses new venture success was measured using a Likert scale, with the funding source panel of judges assessment-testing the following six attributes (see also Appendix C): (a) clarity of problem identification, (b) idea merit, (c) plan executability, (d) team coachability, (e) traction evidence, and (f) management team competency.

Analysis Procedures

I modeled with confirmatory factor analysis (CFA) to test *H*1 with a set of theoretical parameters through factor loading, correlations, and uniqueness. CFA is an assessment rule that will confirm or reject the hypothesis around a population factor

structure based on the sample (Hurley et al., 1997). I tested the *H*1 factor structure of the funding climates' loading of the scale to their respective constructs at CFA>0.5. I used the Comparative Fit Index (CFI), which compares correlation average sizes, looking for CFI >.90. I used the square root mean residual (SRMR) to test absolute fit, looking for values < .06 and Root MAN Square of approximation (RMSEA), another test for fit, looking for values >.05.

Control variables were the type of funding source, which included angel (e.g., silent), equity (i.e., funds for stake/ownership in the venture), and self-funded; firm size; equity position in venture; founder; work experience in years; number of years in business with this funder; and venture size.

According to Russell and Bobko (1992), moderation regression is one of the most widely used models in understanding the relationship between the three constructs in organizational psychology. In this case, I tested Hypotheses 2a, 2b, 3, and 4 to determine whether the prediction/consequence of a dependent variable (New Venture Success) from antecedent independent variables (Passion and Preparedness) differ as modified across the three funding climate factors of the moderating variables (shark, hawk, crocodile).

Summary

Having addressed details about the pilot study, participants, and data collection and analysis in Chapter 4, I will present results from this study in Chapter 5.

CHAPTER V

RESULTS

Introduction

This study attempted to answer the following questions:

1. Is there evidence for the existence of a climate for funding with three different climate facets: active (ACT), sit and pursue (SAP), and sit and wait (SAW)?
2. Do sit and pursue and/or sit and wait climates modify the level of new venture success upon interacting with an entrepreneur's passion?
3. Does active climate modify the level of new venture success upon interacting with an entrepreneur's preparedness?
4. Does sit and wait climate modify the level of new venture success upon interacting with an entrepreneur's passion and preparedness?

Data Collection

There are two data sets contained in the study. The first is a convenience sample comprised of 500 respondents using the Mturk online service, which drew on a wide population throughout North America. These respondents were not necessarily directly involved with business entrepreneurship or financial funding sources. The value of these

data was the power used to run a CFA. The second data set contained 50 pairs of respondents from North America and Europe of either newly established or recently expanding entrepreneurs and a variety of funders. Cleaning the data from the initial 68 entrepreneur respondents and 56 funder respondents revealed some missing data and others pairs that did not match up. Trimming down to the 50 pairs revealed no more than one missing value for each of the data points for any given factor; thus, no other records were removed for missing or bad data.

Analysis and Findings

Descriptive statistics and bivariate correlations are presented in Tables 1 and 2.

Table 1

Convenience Sample

		M	***SD***	**1**	**2**
1	Sit and wait (croc)	3.45	.542		
2	Sit and pursue (hawk)	3.24	.587	.569*	
3	Active (shark)	3.08	.635	.357*	.569*

Note. *Correlation is significant at the 0.05 level (2-tailed); this table shows data from 500 descriptive statistics and bivariate correlations for all variables

Table. 2

Expert Pair

		M	*SD*	1	2	3	4	5
1	Sit and wait (croc)	3.25	.778					
2	Sit and pursue (hawk)	2.51	.939	.374*				
3	Active (shark)	2.80	.855	.026	.064			
4	Passion	3.62	0.536	.090	.288*	.397*		
5	Preparedness	4.01	0.693	.079	-.208	.216	.116	
6	New Venture Success	3.87	0.506	.012	-.052	.019	-.077	.023

Note. *Correlation is significant at the 0.05 level (2-tailed); this table shows data from 50 descriptive statistics and bivariate correlations for all variables

In measuring internal consistency to show how well the items in the scale represented and described the latency intended, findings indicated the results were all strong from both the convenience sample and from the 50-expert sample after significant reductions in the items shown in Table 3.

Table 3

Cronbach's Alpha Measures for Internal Consistency

Funding Climate	**Convenience *n*=500**	**Expert *n*=50**
SAW (croc)	.770	.827
SAP (hawk)	.714	.823
Active (shark)	.663	.692

Confirmatory Factor Analysis

To assess the existence of a funding climate, I conducted a confirmatory factor analysis (CFA) using a convenience sample comprised of 500 respondents. I selected Mplus 7.2 to validate that my hypothesized three-factor structure for a climate for funding does indeed exist using the items in the survey. Of the 22 initial items, 12 items loaded above .5 with significance (p<.05). This analysis was first performed on the convenience sample only because of the high power using a large sample size of 500 compared to the low power of the 50 entrepreneur/funder matched pair sample. The 12 items collapsed onto their related but distinct three factors, indicating that the higher-order funding climate construct could be utilized, representing the items of the scale.

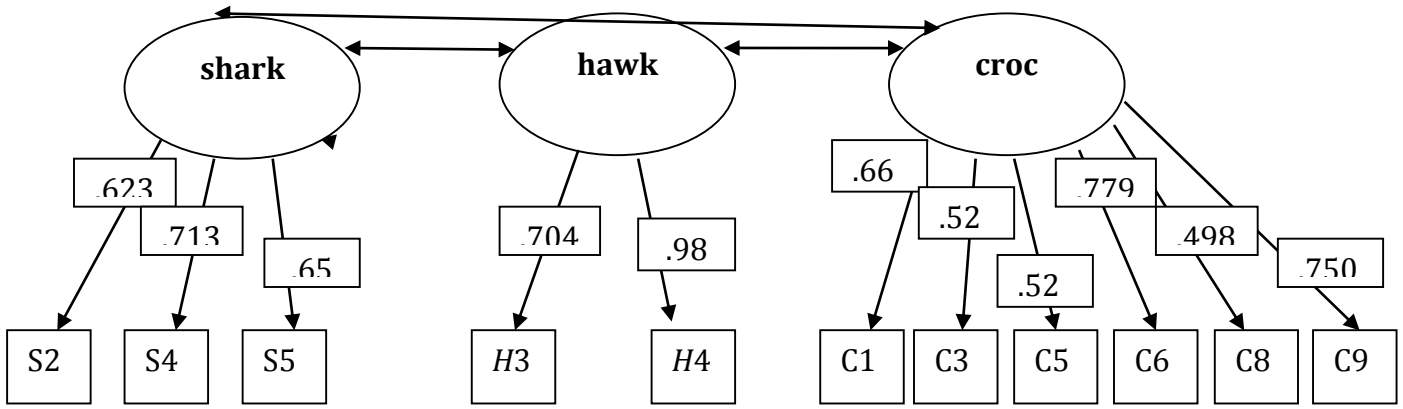
In determining the fit of the model, several measurements were calculated using Mplus 7.2 structure equation modeling (SEM): comparative fit index (CFI), standardized root mean square residual (SRMR), and root mean square error of approximation (RMSEA). CFI evaluates the null/independence model by comparing the same covariance matrix with the null model. According to Hu and Bentler (1999), a value greater than .95 is considered as indicative of good fit. SRMR is another indicator of model fit. Values for the SRMR range from zero to 1.0; good fitting models have values less than .05 (Diamantopoulos & Siguaw, 2000), but values as high as .08 are deemed acceptable (Hu & Bentler, 1999). The RMSEA is also considered a good measure for determining fit and is considered one of the most informative fit indices because it is sensitive to the number of estimated parameters in the model (Diamantopoulos & Siguaw, 2000). Current researchers believe a cut-off value close to .06 or .07 will

provide an adequate fit with a well-fitting model closer to zero (Hu & Bentler, 1999; Steiger, 2007).

After three attempts to run the model successfully by reducing poorly loading items (see full tech report in Appendix E),, I reran the model with two items per factor and achieved very good results in all parameters. CFI increased to .994, showing a strong model fit; RMSEA reduced to .039 and SRMR to .021, indicating good absolute fit.

The results for the factor model fit for the Funding Climate construct showed good fit (CFI = .994, SRMR = .021, RMSEA = .039). Since all item loadings were found to be significant, the three-factor model items were combined to form a three-faceted climate for funding (see Figure 7). These results support *H*1.

Figure 7. Funding climate model



Test for Moderation of Climate for Funding

Hypothesis 2a. *H*2a was tested using moderated regression where Funding Climate SAW (croc) moderated the relationship between passion and new venture success. Utilizing the regression module in STATA, moderated regression was used to determine the relationship. The regression analysis was performed using standardized data and the interaction between Passion and the SAW (croc) climate for funding facet. The results are shown below in Table 4. The results failed to support *H*2a in that the Sit and Wait funding climate facet does not seem to moderate the relationship between entrepreneurial passion and new venture success, such that when passion is high, the moderated relationship of passion to new venture success is more positive. The hypothesized interactive effects are shown in Figure 8.

Table 4

Moderated Multiple Regression: Passion and SAW (Croc)

	B	***SE***	***t***	***p***	***F***	***R2***	***^R2***
Step 1 (controls)							
Passion	-.16	.122	-1.32	.193	1.73	.035	.015
Step 2 (interactions)							
Passion	-.204	.088	-1	.322			
SAW (croc)	.122	.118	.21	.836			
Passion*SAW	.070	.107	1.02	.311	.198	.116	.057

Note. Level of significance:*$p < .05$

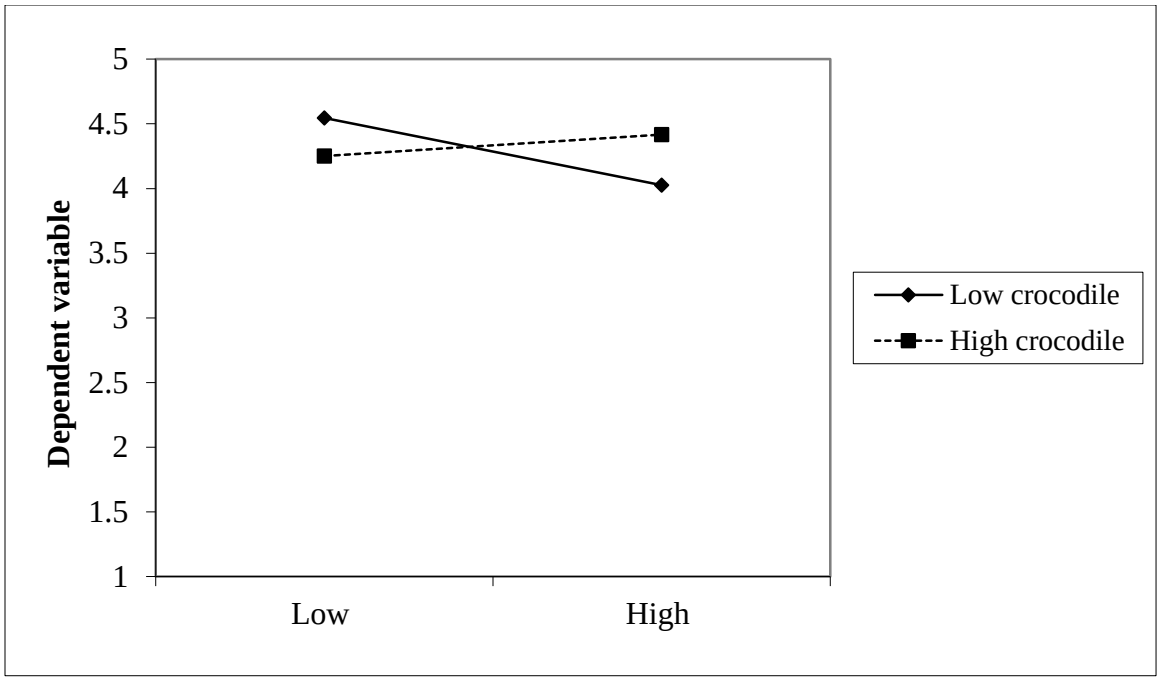


Figure 8. Interaction of SAW (Croc) and passion on New Venture Success

Hypothesis 2b. *H*2b was tested using moderated regression where Funding Climate SAP (hawk) moderated the relationship between passion and new venture success. Utilizing the regression module in STATA, moderated regression was used to determine the relationship. The regression analysis was performed using standardized data and all possible interactions. The results are shown in Table 5. The results failed to support *H*2b in that the Sit and Pursue funding climate facet does not seem to moderate the relationship between entrepreneurial passion and new venture success, such that when passion is high, the moderated relationship of passion to new venture success is more positive. The interactive effects are shown in Figure 9.

Table 5

Moderated Multiple Regression: Passion and SAP (Hawk) Funding Climate

	B	***SE***	***t***	***p***	***F***	***R2***	***^R2***
Step 1 (controls)							
Passion	-.161	.122	-1.32	.193	1.73	.035	.015
Step 2 (interactions)							
Passion	-.147	.126	-1.17	.249			
SAP(hawk)	-.016	.145	-.11	.913			
Passion*SAW	-.299	.510	-.59	.559	.691	.044	-.019

Note. Level of significance:*$p < .05$

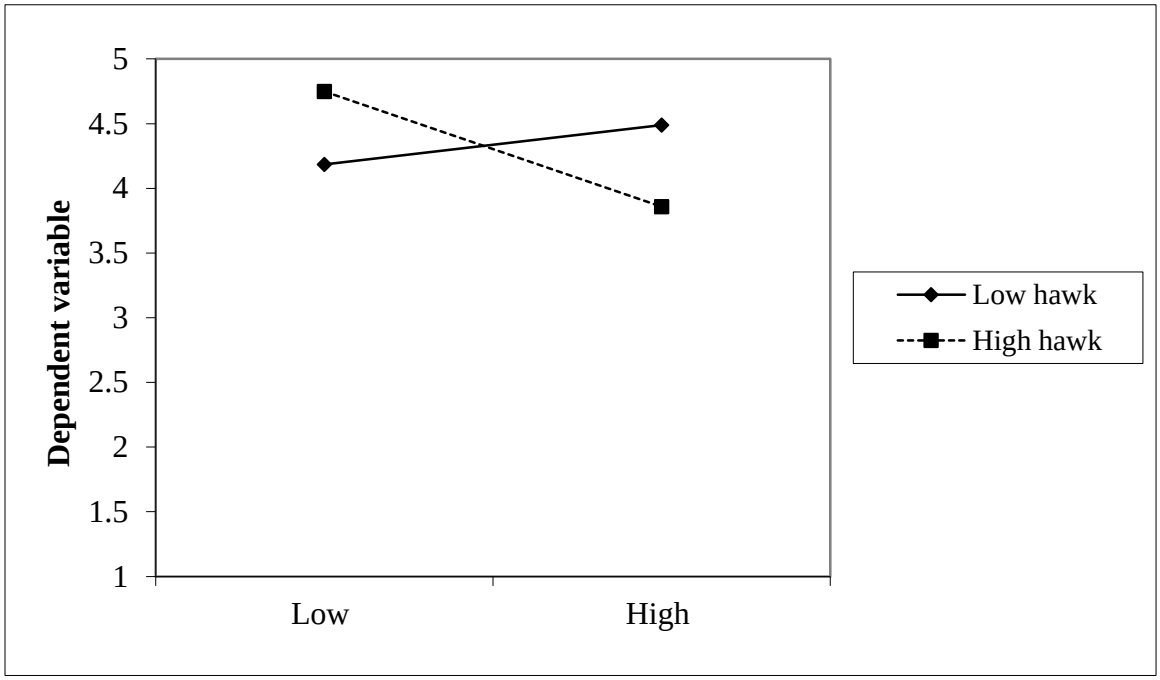


Figure 9. Interaction of SAP (Hawk) and passion on New Venture Success.

Hypothesis 3. *H*3 was tested using a moderated regression where the Active Funding Climate facet (shark) moderates the relationship between preparedness and new venture success, such that when preparedness is high, the moderated relationship of passion to new venture success is more positive. Utilizing the regression module in STATA, moderated regression was used to determine the relationship. The regression analysis was performed using standardized data and all possible interactions. The results are shown in Table 6. The results failed to support *H*3, in that the Active climate did not appear to moderate the relationship between entrepreneurial preparedness and new venture success, such that when preparedness is high, the moderated relationship of preparedness to new venture success is more positive. The interactive effects are shown in Figure 10.

Table 6

Moderated Multiple Regression: Preparedness & Active (Shark) Funding Climate

	B	***SE***	***t***	***p***	***F***	***R2***	***^R2***
Step 1 (controls)							
Preparedness	.038	.145	.27	.790	.071	.001	-.019
Step 2 (interactions)							
Preparedness	.092	.146	.63	.531			
Active (shark)	-.153	.101	-1.52	.135			
Preparedness*Active	-.431	.286	-1.5	.139	1.05	.065	.003

Note. Level of significance:*$p < .05$

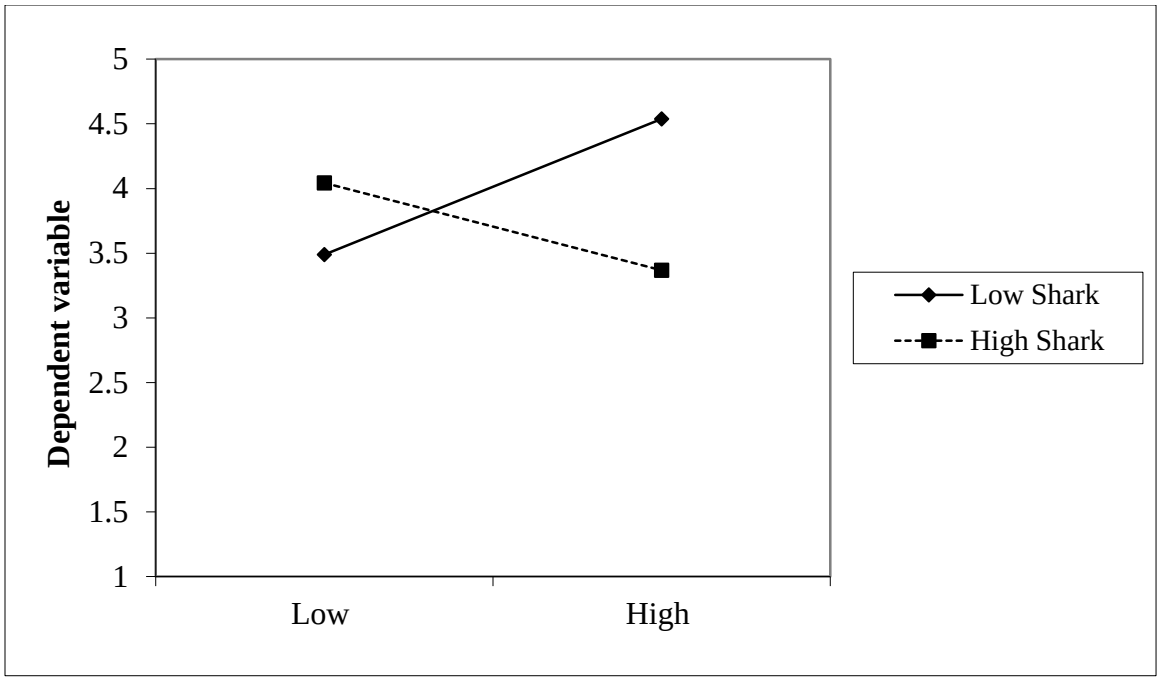


Figure 10. Interaction of active and preparedness on New Venture Success

Hypothesis 4. *H*4 was tested using a moderated regression where the passion and preparedness will interact with each other and SAW funding climate facet (croc) in such a way that new venture success will be the highest. Utilizing the regression module in STATA, moderated regression was used to determine the relationship.

The regression analysis was performed using standardized data and all possible interactions. The results are shown in Table 7. The results failed to support *H*4. Sit and wait climate did not appear to moderate the relationship between entrepreneurial passion and preparedness and new venture success, such that when passion and preparedness are high, the moderated relationship of passion and preparedness to new venture success is most positive. The interactive effects are shown in Figure 11.

Table 7

Moderated Multiple Regression: Passion, Preparenedness, and SAW

	B	***SE***	***t***	***p***	***F***	***R2***	***^R2***
Step 1 (controls)							
Passion	-.161	.112	-1.32	.193	1.73	.035	-.019
Step 2 (interactions)							
Preparedness	.038	.145	.27	.790	.071	.001	-.019
Passion*Preparedness	-.197	.130	-1.47	.147	1.12	.046	.005
Step 3(three way intrcn)							
SAW (croc)	.260	.121	2.15	.037			
Passion*PP*SAW	.213	.182	1.17	.249	1.98	.116	.057

Note. Level of significance:*$p < .05$

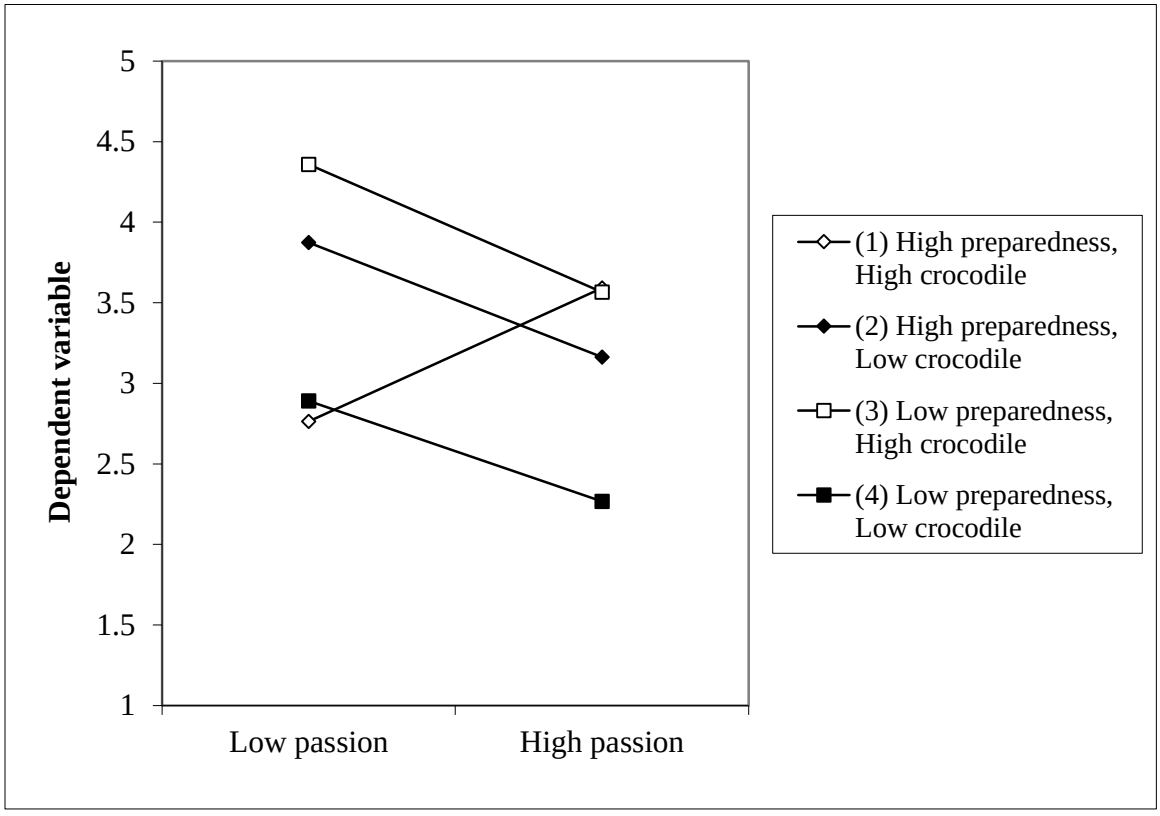


Figure 11. Interaction of SAW and passion and preparedness on New Venture Success.

Summary

The items in the scale survey on funding climate appear to align with each other in that they measure the latency behaviors to a high degree that they represent. Additionally, crocodile climate described as Sit and Wait, hawk climate described by Sit and Pursue, and shark climate described as Active are all correlated to each other but also unique to a fair degree. There appears to be evidence of a climate for funding comprised of those three facets, based on the comparative fit index measures after running the model through a CFA supported more thoroughly by tests for absolute fit and model fit. The relationship of the interaction between these funding climate facets do not appear to be statistically significant to an entrepreneur's new venture success, regardless of the amounts of passion or preparedness brought forth.

CHAPTER VI

DISCUSSION

Overall Interpretation

This research reveals evidence that a new type of climate is present in the greater organizational behavior domain of climate theory. Whether considered an extension of the current collection of climates well documented in the literature (Ostroff, Kinicki & Tampkins, 2003) or new learning outside of ongoing academic conversations, there appears to be definitive evidence to include a new climate dimension about funding. The results from my analysis offer supporting evidence for the existence of a funding climate in the competitive entrepreneurial business and funding source marketplace. Thus, the primary contribution of this paper is extending the current set of descriptive climates in the literature by adding to the list a climate for funding.

Surprisingly, the secondary hypotheses' results failed to demonstrate with significance and clarity the impact of this new climate on new venture success outcomes. These findings represent an interesting dilemma regarding the generalizability of the funding climate impact on new venture success given the evident presence of this funding climate. Whether or not a climate for funding could have an impact on the interactions between entrepreneur and funder remains yet to be demonstrated. Researchers in this

field will now have new data to apply in learning more about entrepreneur and funder interactions from interpreting results of the 50 pairs of respondents. Building from the behavioral ecology theories of foraging and predator behaviors toward relating behavioral ecology of consumption in the business environment (Rajala & Huntula, 2000), I arrived at business funding source styles replicating those three facets: shark, hawk, and croc. The results from the collective 50 paired expert group failed to substantiate the well documented effects of passion and preparedness toward new venture success as discussed by Chen et al. (2009). There does, however, appear to be real science behind the anecdotal observations now popular in the "Shark Tank" television program, which displays overt predator and prey behavior of the funders and the passion and preparedness of new venture entrepreneurs in the marketplace. Most obvious and entertaining are different funding styles and interactions with the upstart businesses, which also form the theoretical foundations of this paper. The shark, hawk, and crocodile styles differentiate the dimensions or facets of the funding techniques and form the climate in which the entrepreneurs must function. Most interesting is the extension of established climate theories by the addition of a climate for funding to the well-known climates for justice, safety or service, and innovation.

In presenting the theoretical implications of this study, I will begin by dividing two sections or groupings of hypotheses. The first hypothesis, *H*1, stands alone in positing the existence of a funding climate, with the second grouping consisting of the four hypotheses regarding the moderating effect of each of the three funding climate facets on new venture success by interactions with entrepreneurial passion and preparedness. The evidence for funding climate as a new climate dimension is

satisfyingly strong, while the impact of its presence and moderating power remains inconclusive and not significant based on these results. The marginal significance of entrepreneurial passion's and preparedness's effects on new venture success are equally puzzling and bring into question these results in light of the previously well documented relationship between the two variables. In this chapter, I will discuss the implications of my results from theoretical and practical perspectives. Additionally, I will examine the limitations of this study and describe some potential future research possibilities to extend this work in organizational behavior.

Theoretical Implications

This research examines the perceptions of individual members of the entrepreneurial management team on how they were treated during individual interactions with potential funding sources. Multiple respondents from the same company would have required aggregating those impressions to the group level. The present research on psychological climate and to some extent organizational climate through the agency of individuals is long standing and broad, if not complexly diverse in the literature. Glick (1985) extolled the virtue of both psychological and organizational climate as useful categories of variables for multidimensional assessments of individual–organizational relationships. This study supported individual climate perceptions presented by the actions or styles of the various funding organizations into three distinguished modes or facets. For over the last half century, climate has been a focus of organizational psychology, beginning with the 1939 social climate study by Lewin, Lippitt and White. James and Jones (1974) advocated for distinction of psychological from organizational climate to determine the interaction between conditions of the

organization and various individual characteristics that lead to a particular perceived or psychological climate.

The ecological climate domain as it relates to the business field has significant overlap, as described by Wells (2012), and Barbosa and Castellanos (2005). The predator-prey reference is strong in the literature of both groups from the behavioral ecology of consumption model ascribed to Rajala and Hantula (2000). Because Olsen (2008) related animal and human decision-making similarities between food and investment, the notion of funders hunting for investments in the form of new venture entrepreneurs is documented. This paper reinforces that linkage between the ecological climate (predator and prey construct) and the business economic domain by aligning the search for good investments in new venture ideas with the search for food. The objective of my research on the climate created by this foraging activity in the marketplace is to fill a gap between what is known in the literature about the entrepreneurship and what is not known about the interaction with investor funding behaviors. Significant literature exists on the elements of successful entrepreneurship (Baron, 2008; Cardon, 2009; Chen, 2009) as it relates to new venture success. Similarly, the literature has rich discoveries on investors and their success. My model extends or builds from established constructs of climate such as climate for safety, service, and justice, to the existence of a climate for funding, and the model shows that it is comprised of unique but related facets.

The results suggest that there is a funding climate comprised of those three facets or factors—Sit and Pursue, Sit and Wait, and Active—which were well represented by the survey items used as describing those unique but related behaviors. I expected that the 22-item scale would run in the model after having conducted the EFA with subject matter

experts in Wallace et al. (2013). I was surprised after analyzing a moderate size (*n*=500) population not in the entrepreneurial or funding domain that this population would yield positive results in the Confirmatory Factor Analysis. This finding suggests that these results are strong indicators for evidence of the funding climate construct. After obtaining 50 paired respondents from the representative population of business entrepreneurs and funding sources comprised of new or expanding entrepreneurial businesses with their matching funding sources, I assumed that the data would align with the high count 500 convenience sample, which it did. The regression analysis on the funding climate's relationship to passion and preparedness toward new venture success outcomes, however, was disappointing in that there appeared to be no statistically significant relationship as a moderator for any of the hypothesis. My results bring into question why this analysis was unable to replicate the established theories regarding passion and preparedness with new venture success.

Many aspects of this study reveal interesting and theoretically supportive results, both expected and unforeseen. The major contribution to the existing body of knowledge concerns the theories on climate. The literature on funding climate is sparse to nonexistent. This work does represent a theoretical beginning to understanding what elements make up this construct. The three facets identified have statistical support from the reliability and internal consistency measures and the correlations between the factors. This work has formed the foundation for what a climate for funding is and is not. Further, it extends the current climate research by validating the first hypothesis on whether or not there exists a climate for funding.

Wells (2012) discussed the advantages and drawbacks of each style of predator

behavior in terms of a return for the effort given by the predator/ funder. The 22-item scale describing those styles was reduced, allowing the model to run and obtain established acceptable fit parameters. The results suggest that a funding climate exists, and minimally that the items selected accurately describe it and represent unobservable characteristics from those observable ones described. The moderating effect of this climate does not seem to be statistically impactful, as indicated by the low *R* squared measure of each of the moderation hypotheses. Specifically, the level of new venture success does not appear to be moderated in either *H*2a SAW (croc) behavior or *H*2b SAP (hawk) behavior as it interacts with entrepreneurial passion. Because of the low *R*-squared direct effect relationship between passion and new venture success, a moderated funding climate effect would be impractical and from my calculations had low *R*-squared as well. Additionally, the same dissatisfying results were drawn from *H*3 entrepreneurial preparedness as it relates to new venture success, and further modifying effects of Active (shark) behavior were not significant. Lastly, *H*4 of a three-way interaction of passion with preparedness with SAW (croc) behavior was not significant, as revealed by the low *R*-squared direct and interactive effects.

Practical Implications

Both business entrepreneurs and funders, which is another name for investors, have been searching for centuries to determine how to best use the time and money to maximize outcomes. From a business perspective, the entrepreneur works to develop an idea into a business plan that can recognize growth and market penetration past current boundaries. The ingredients are well described in the entrepreneurship literature in which passion and preparedness show prominently. Chen et al. (2009) affirmed passion and

preparedness as critical indicators for success, while Similor (1997) identified passion as the most observable trait in the entrepreneurial process. Baum and Locke (2004) pointed out that although there is no empirical relationship between passion and enterprise growth (one of our success measures), they were able to discover significant indirect and mediating effects between the two. That finding offers promise that although this study did not find the same significance statistically, it has been seen before and could well be a factor to new venture success.

Entrepreneurs are aided in the quest for success by the scrutiny provided by any outside funding source, from their mere objectivity in assessing the concept to their knowledge of the competitive funding domain and their assessment of the displayed capability of the entrepreneurs themselves. From the collection of cognitive, affective, and behavioral skill sets that Vallerand et al. (2003) described as observable in the entrepreneurs' levels of passion and preparedness, funders gain a sense of what will work for their own business style and needs. The combination has to be a fit on both sides of the equation for a match to succeed.

This research attempted to model that fit by positing hypotheses that matched variables to determine which of the matches would yield a positive change. Most of the variables were paired as offsets to potential exposures fundamental in characteristics held by the other. My theory was prompted by Russell's (2003) research regarding completely catalyzed passionate emotion, which engages the brain with both appraisals and cognitions, therein addressing both sides of the brain functions for content analytics and affective heuristic activities. For example, in *H*3, in which active shark behavior of the funder was matched with the preparedness traits of an entrepreneur, the aggressive was

countered by the cautious. Similar matches were hypothesized in *H*2a and *H*2b, matching the SAW crocodile or SAP hawk characteristics of a funding source with the aggressive characteristics of a passionate entrepreneur. Because both entrepreneur and funder would seek to minimize risks for each of them stemming from the uncertainty of a new venture, the characteristics of opposing techniques or styles would add to the combined entities. The work of Galbraith et al. (2013) stimulated my *H*4 hypothesis regarding the three-way interaction among passion, preparedness, and SAW crocodile climate. It was their assertion that both the material content and delivery style of the entrepreneur's presentation would interact, revealing measureable elements related to passion and preparedness associated with new venture success. Combining those single path attributes described in Krulanski and Thompson's (1999) unimodel theory regarding effective persuasion with the cautious analytics represented by crocodile SAW facet funding climate, funders and entrepreneurs would have to both relate affectively to and align cognitively on the prospects of a business plan.

Underpinning the interactions between entrepreneur and funder is the hypothesis regarding the climate in which the business entrepreneur operates. Because climate describes how the entrepreneur perceives a funding source with which she or he is engaged, it essentially defines the lens through which the entrepreneur see the marketplace and influences how that entrepreneur thinks and acts in operating the business. This is where the person-organization fit (POF) described by Parsons, Cable, and Wilkerson (1999) and Schneider's (1983) attraction-selection-attrition (ASA) theory may collide. Both of these theories describe how alignment of values (in the case of POF) and compatibility (from ASA theory) are relevant in relating the funder and

entrepreneur in this research.

My hypotheses posited that the strong offsets to the other side's weaknesses would result in a positive outcome of higher new venture success. My hypotheses suggest that they "cover for the other," making the combination of characteristics beneficial from a risk mitigation and a widening skillset perspective. This mutual covering aspect, however, does not address the challenges both entrepreneur and funder face at the outset of the potential relationship in interacting and affiliating with each other. Funders could use this work to help determine the next target opportunity that fits their style of funding techniques. Introspectively, funders could assess their own characteristics through the perception of existing partner entrepreneurs to help understand more completely what style they might want to employ to change their current outcomes, including ROIs. Business entrepreneurs might use this work to determine what funders work positively for their particular business style and attributes.

Ultimately, just as with the other well documented climates for justice, innovation, and safety, when both funder and entrepreneur are aware of the presence of the funding climate, actions can be taken only then to best accommodate risk mitigation and respond to opportunities presented. While this study did not convincingly demonstrate with statistical significance the impact of those interactions between passion and preparedness and facets of the funding climate, the competitive nature of the marketplace demands businesses and funders understand those known variables to success. Just as described in the behavioral ecology theory cited in the beginning of this paper, where the interaction between predator and prey is essential to existence in the wild, so it goes in the business and investor/funder marketplace, where that same

interaction determines which businesses thrive and which struggle and risk survival.

Limitations

In all research, limitations and compromise tradeoffs are made to obtain insight and efficiently test theory. Accordingly, there are several limitations to this research requiring examination. The data collected and analyzed in this study represented significant geographical diversity in both the convenience sample and the expert sample with respondents from North American and Europe; however, the collection was a single respondent from each organization. Although the research found a good model fit on *H*1 with a nonrepresentative sample of the target population, as Hinkins (1998) cautioned against, it was powered by a moderate (n=500) sample size to obtain statistical significance, which would have been lessened by the potential outliers and miscoded response entries. The 50 expert respondent pairings yielded coefficients sufficient to show relationships but not in a large enough sample size to generate statistically significant results or reliable model fit results from a CFA. Small sample size can restrict the detection of significant results due to low levels of statistical power (Cohen, 1988). Further, the sample moderated regression tests yielded poor results predicting the dependent variable outcome from the interaction of two independent variables. Doubts could be raised about the phrasing of particular survey items and the potential for reverse affirmative scoring where a low number actually meant a higher alignment of the factor being measured.

After completing this research, I believe the *H*1 results generate strong evidence for the existence of a funding climate. Using a larger, more targeted and representative sample (Hinkins, 1995) could yield a more valuable and statistically stronger result

measure. Moreover, to improve power and increase reliability, gathering multiple respondents from each entrepreneurial management team as well as more than one respondent for each funding source is advised. That technique, however, would include aggregation, which fosters significant controversy in the organizational and psychological (individual) climate constructs, according to James and Jones (1974).

The 14-item scale for the funders to evaluate the merit, skill, and competency of the management team and their business plan limited the test to only six indicators of future success, whereas many more indicators could have generated an increasingly accurate description. The other bias of the techniques used in collecting data stems from the potential lack of objectivity of the funding respondents, all of whom were reporting on the actual businesses they had already funded: Any negative scoring of these businesses could have been taken to reflect poorly on the judgment of their own doing. Another factor to increasing the discrimination by the respondents would be to eliminate the neutral choice in the 5-point Likert scale, which allows ambiguity from middle-of-the-road responses. Replicating this study over an extended time may offer further explanation of these results as well. Similarly, examining the same entrepreneur and funder pairs at specified intervals may reveal a continuum of attributes to both groups. For example, as the funder's degree of success changes over time, their funding technique toward a matching entrepreneur and future projects might be different.

This study had two intentions. The first was to identify a construct under organizational behavior involving psychological climate for funding, which appears successful from the scale validation and CFA. The second intention was not realized because results did not reveal a relationship between Funding Climate and New Venture

Success. One potential explanation for this challenge in identifying a clear impact of any particular facet could be that funding sources perform on an ever-changing range of climates, depending on several factors. It is possible that each funder could display characteristics from each of the facets of the funding climate, depending on internal and external conditions. Another limitation from the scale presented is the unknown length of time over which each paired relationship interacted. Some of the funding sources may be in early days of the relationship, while others could well be on a second or third venture with an entrepreneur. One more consideration that was not accounted for is the timing of the market when the sample was collected. The time factor has a significant bearing on the fund availability and willingness of the funding source to engage.

Future Research

An area for future research in the fields of management, organizational behavior, and entrepreneurship would be to study the shared perceptions of entrepreneurial businesses and funding assessment panels in development of new venture businesses for success. There exists a wide variety of idea houses sponsored by experienced entrepreneurs and funders around North American, such as Tech Ranch, Capital Factory, and OSU innovators where ample opportunities to study the progress of a potential business or newly funded entrepreneurial idea can be examined periodically and progressively under nearly laboratory-reliable conditions. Another technique worthwhile of study is examining this very same construct at the group level. Organizational climate research has great promise in this domain, given the amount of literature on entrepreneurial organizational climate and the scarcity of discussion on the interaction of entrepreneurs with funders (as cited in Wallace et al., 2013). More research can be done

evaluating what other exogenous variables contribute to new venture success. The potential to discover why funding climate appears to have little effect on the outcomes of newly formed ventures would be meaningful, given there exist more significant factors.

Relative to the limitations reported in the last section, an immediate opportunity in future research could be targeted at improving the overall fit of the scale items used in the survey. As an extension to this study, research on the impact of the funding climate on the progressive business cycle would prove interesting in regards to well developed and established businesses as they seek additional funding to either expand or sustain a mature model. Alternatively, future research might achieve more clarity on the effects of a funding climate by adding more items to the current funding source scale, expanding each of the six indicators—problem clarity, idea merit, product traction, plan executability, competency, and coachability—to include a more robust description of success. Further extending this work by reducing the 5-point Likert scale to four choices would decrease a degree of ambiguity, thus increasing the discriminant validity of the scales used here. Another extension of this work into a laboratory setting could provide greater clarity on the existence of a climate for funding and its impact. Because of the lack of statistical power used in this study, causality is challenging to identify. Designing a similar study in a controlled environment similar to those performed in the so-called "incubation houses" would be an interested and reliable way to gather data.

Conclusions

To date the relationship between members of the business entrepreneurial management team and its funding source on a path to new venture success has not received a high degree of attention in the literature. Much is known and documented

about entrepreneurs' success, and considerable research has been accomplished in examining successful funding sources. This work validated evidence of the existence of a climate for funding by describing three distinct but related dimensions or facets. This research intended to reveal the moderating impact of this funding climate on entrepreneurial passion and preparedness to positively affect new venture success. The results did not show that the funding climate had significant effect on new venture success. Particularly interesting were the strong indications of the presence of a funding climate in both a nonrepresentative business sample and the expert sample population. This funding climate is important for both funder and businesses to recognize when considering their entry into the competitive marketplace.

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APPENDICES

APPENDIX A: INSTRUCTIONS FOR PARTICIPANTS

The instructions to the participants are as follows:

I am attempting to validate a new survey instrument that speaks to the overall feel of a funding agency through the eyes of the business seeking capital investment (e.g., entrepreneur, business startup, new venture, etc.). To do so, I have to make sure our items are appropriate. This is the first step to make sure my new survey instrument is tapping into the correct domain. This is where you come in. You are an expert in business funding and I would like you to sort each of our survey items into one of three categories. To do so, please read the description of our categories (Shark, Hawk, and Crocodile) – they are listed below and at the top of the attached Excel spreadsheet. In the attached spreadsheet, place an 'x' in the column that you feel the statement best reflects using the definitions at the top of the column (or below for reference). If you feel it does not correspond to any of the three categories, please place an 'x' in the N/A column. Only one column should be selected per question. On completion, please name the file with your name and send back to me. Thank you for your help".

APPENDIX B: FUNDING CLIMATE ITEMS

Using the scale below, please rate your agreement with the following questions. These questions tap into multiple dimensions of the organizational climate for how you feel about the funding source you have for the new company.

1= (Strongly Disagree) 2= (Disagree) 3= (Neither Agree nor Disagree)
4= (Agree) 5= (Strongly Agree)

- Our funding source has a thoughtful yet passive approach.
- Our funding source is reserved.
- Our funding source is conservative.
- Our funding source is patient.
- Our funding source is cautious.
- Our funding source spent a long time to decide whether or not to give us funding.
- Our funding source was looking only for the right opportunity.
- Our funding source spent time studying our business before deciding to work with us.
- Our funding source required considerable amount of "hand holding" before funding us.
- Our funding source was reluctant to fund our venture and needed convincing.
- Our funding source continues with a passive approach to funding.
- Our funding source was initially passive, but quickly turned into an aggressive investor.
- Our funding source was patient at first, but then became aggressive after seeing our business plan.
- After approaching our funding source, they were very active in funding process.
- Our funding source switched from passive to active after initially meeting with us.
- Our funding source requires us to compete to win their business.
- Our funding source waited to be approached by us.
- Our funding source continues to actively pursue other businesses in our industry.
- Our funding source is aggressive.
- Our funding source frequently contacts us.
- Our funding source approached us first.
- Our funding source pursued us.

APPENDIX C: PASSION AND PREPAREDNESS ITEMS

Using the scale below, please rate your agreement with the following questions. These questions tap into multiple dimensions of the organizational climate for how you feel about being inside the new company.

1 (Strongly Disagree)
2 (Disagree)
3 (Neither Agree nor Disagree)
4 (Agree)
5 (Strongly Agree)

- My job is a passion for me.
- My job is in harmony with the other activities in my life.
- I have difficulties controlling my urge to do my job.
- The new things that I discover doing my job allow me to appreciate it even more.
- I have almost an obsessive feeling for my job.
- My job reflects the qualities I like about myself.
- My job is well integrated in my life.
- If I could, I would only do my job.
- My job is in harmony with other things that are part of me.
- My job is so exciting that I sometimes lose control over it.
- I have the impression that my job teacher controls me.
- I am well prepared for my job.
- I am up to meeting the challenges my job offers.
- I have been well-trained to handle my job tasks.
- I could be more prepared for my job.
- I think about how I can be more prepared for my job.
- I seek out additional training and development to be prepared for my job.

APPENDIX D: NEW (EARLY) VENTURE SUCCESS ITEMS

Using the scale below, please rate your agreement with the following questions. These questions tap into multiple dimensions of a new venture team having early stage success. As you consider these questions, please keep in mind the entrepreneurial idea of the new venture team and the team members themselves.

1 (Strongly Disagree)
2 (Disagree)
3 (Neither Agree nor Disagree)
4 (Agree)
5 (Strongly Agree)

Problem ID clarity questions:

1. This new venture team has identified a market opportunity
2. This new venture team has described the consumer challenge clearly
3. This new venture team presented evidence that the challenge is real

Idea Merit

1. This new venture team's idea has merit
2. The idea behind this new venture team has promise
3. The idea is unique
4. The solution proposed is a version to others already at market

Product traction evidence

1. This new venture team has seed money already
2. There is evidence of initial traction for the new venture team's idea/product
3. The new venture team has already produced product at low rate.
4. There are products on order or letters of intent to purchase

Plan Executability

1. The set price per unit exceeds the cost per unit
2. The venture could be profitable funded at $1m dollars or less
3. Barriers to market entry have been identified and addressed
4. Barriers to market entry have been eliminated

EMT Competency

1. This new venture team has a skilled financial manager
2. This new venture team has technical experience on the product
3. This new venture team has a logical path to profitability

Coachability

1. This new venture team listened and understood my input to their plan
2. This new venture team was likely here only for my money
3. This new venture team asked questions about solving business challenges

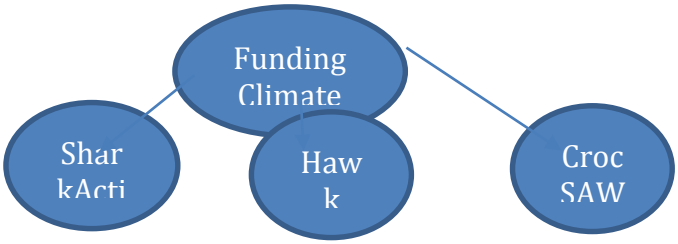
APPENDIX E: DISSERTATION TECH REPORT

Funding Climate and its Impact on New Venture Success

Toward Construct Identification and Scale Validation

By Fred E. Cleveland

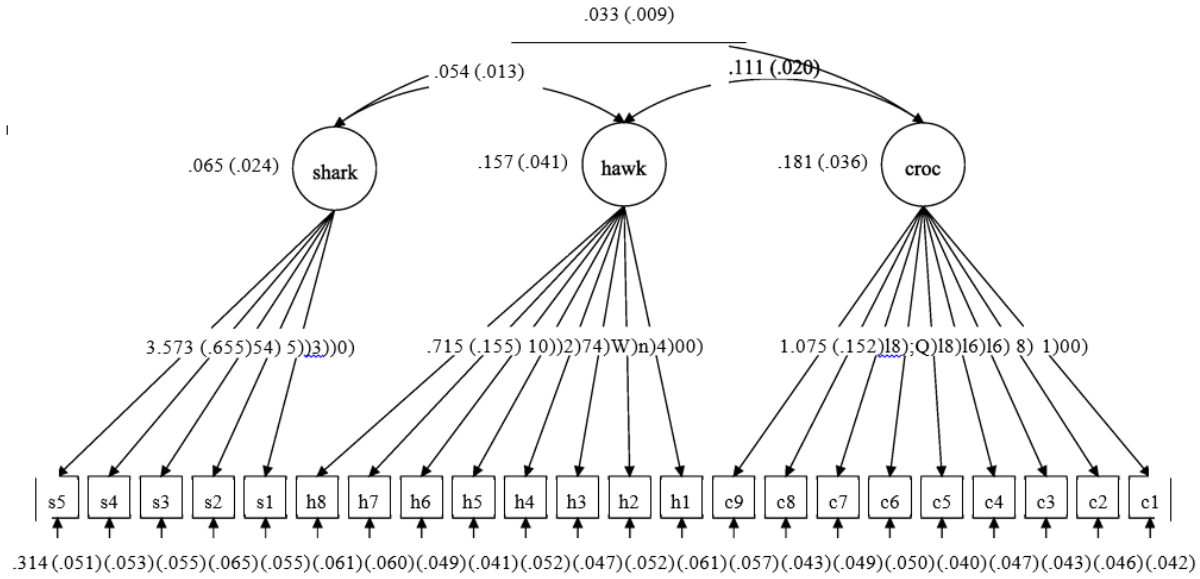
The Committee's direction included a convenience test on one of the foundational hypothesis in the dissertation, specifically the possibility of the existence of a new dimension to climate theory, specifically a "Climate for Funding." Further, we want a level of confidence in understanding the construct validity (convergent and divergent) and whether or not each of the three proposed facets (Active, Sit and Pursue "SAP", and Sit and Wait "SAW") were indeed different, the same, or related.



4.
5.
6.
7. The three tasks using the data was to demonstrate internal consistencies, the likelihood of a relationship and the between the three facets or styles of a funding climate (bivariate correlations) and lastly model fit. My 22 item scale on Qualtrics was tested with 500 MTurk participants using a 5 choice Likert scale of agreement with statements describing the respondent's perception from the experience they had with a funding source. We received 473 complete sets of responses.
8. The analysis includes reliability Cronbach Alpha tests for internal consistency with rule of thumb (>.70), examination of bivariate correlations among the Shark, Hawk and Croc facets, with rules of thumb for a Pearson's Coefficient for correlation >.7 and lastly Confirmatory Factor Analysis of the model fit: CFI > .90, RMSEA < .06 and RMSR < .08.
9. **Results:**
10. Internal consistencies show how well the items in the scale used are representing the latency described/represented by the question. The Sit and Wait behavior labeled as Croc showed a Cronbach's Alpha of .770, Sit and Pursue labeled as Hawk was .714 and Active behavior described as Shark was .663, the weakest of the three.
11. Bivariate correlations shows whether we are measuring the same thing in each behavior (convergent validity) or whether they are totally unrelated (divergent). Using Pearson's coefficient we observe the relationship between these behaviors is strong (.569) between Croc to Hawk and strong (.569) between Shark to Hawk and moderate (.357) between Croc to Shark.
12. CFA: After running all 22 scale items on Mplus for the first time through testing for the degree of which observable variables represented the three latent variable factors, Croc, Hawk and Shark, the results were out of bounds and not acceptable: the factor loading was low on several items, the Fit indices were high in both RMSEA and SRMR with poor model fit as can be seen in the Mplus output run below and attached. The model runs poorly without adjustments, yielding a CFI of only .663 indicating not an acceptable model fit and high error terms. Further, the RMSEA fit was poor at .106 and poor SRMR absolute fit of .94. Also using Mplus version 7.2 to determine the loading of each item to the three latent variables are shown below.
13.
14.

CFI = .663	RMSEA= .106	SRMR= .94

15.



16.

17. After reducing the scale by removing poorly loading items, I was able to get the model to run acceptably within bounds with 6 items loading well on the first two factors (croc and hawk) and 2 for the third factor (shark). I removed any item loading less than .50 for failing to well represent the described behavior and improve the fit. I removed only a total of eight items, C1, C2, C3, H1, H2, S1, S2 and S3. I also elected not to covary the error terms or parcel the items themselves at this point in order to insure clarity. CFI increased to .881 and lowered the RMSEA to .098 and SMSR to .072. Please see the results below and the output run attached:

CFI= .881	RMSEA= .098	RMSR= .072

18.

19.

20. In a third reduction of poorly loading items, I reran the model with 2 items per factor and achieved very good results in all parameters. CFI increased to .994 showing a strong model fit, and RMSEA reduced to .039 and SRMR to .021 indicating good absolute fit. Attached is the output run from Mplus.

CFI = .994	RMSEA= .039	SRMR= .021

21.

22. **Conclusions**:

23. Considering that the pre-survey data was a convenience test and the participants did not represent the target population as Hinkins 95 recommends, it does still appears that there are indeed 3 types/facet of funding climates (active-sharks, sit and pursue-hawks, and sit and wait-crocs). From this early data we see that the facets are related, but they are also distinct. This satisfies our theoretical assumptions in order to move forward with the primary sampling survey testing.

24. My conclusion is reinforced by Hinkins scale development design of the developmental study determinations in his 1995 paper on sample choices, which says that " the sample chosen should represent the population that the researcher will be studying in the future and to which results will be generalized,". The MTurk convenience test data results which show even with using respondents not necessarily in the same demographic as the subject material population, many of the indicators are within limits and the model itself very closely approaches acceptable fit parameters.

25. **Next Steps:**

26. The primary psychometric testing will use data from matched pairs of entrepreneurs and funders. This group would be comprised of a representative sample of the population informed on the material. I plan to begin again with all of the 22 items to run the analysis and either confirm or refute the validity of those eliminated items. This CFA should affirm the techniques and the goodness parameters will remain the same. Moderated regression will be used to determine the relationship between independent input variables

passion and preparedness and the output dependent variable New Venture Success as moderated by the three facets of the climate for funding.

```
27.
28.
29.
30.      Mplus VERSION 7.2      FIRST RUN WITH ALL ITEMS
31.      MUTHEN & MUTHEN
32.      08/31/2014  10:33 AM
33.
34.      INPUT INSTRUCTIONS
35.
36.          Title: FEC_CFA
37.       Data:
38.              File is C:\Users\ data\fredata\freddata.xls.dat ;
39.              listwise = on;
40.            Variable:
41.              Names are
42.                 Croc1 Croc2 Croc3 Croc4 Croc5 Croc6 Croc7 Croc8
   Croc9 hawk1 hawk2
43.                 hawk3 hawk4 hawk5 hawk6 hawk7 hawk8 shark1 shark2
   shark3 shark4 shark5
44.                 shark6;
45.              Missing are all (-9999) ;
46.             usevariables are  hawk3 hawk4 hawk5 hawk6 hawk7
47.              Croc1 Croc2 Croc3 Croc4 Croc5 Croc6 Croc7 Croc8 Croc9
48.              shark2 shark3 shark4 shark5;
49.
50.            Analysis:
51.              estimator = ML ; type=general;
52.              model=nomeanstructure; information=expected;
53.              model: f1 by Croc1 Croc2 Croc3 Croc4 Croc5 Croc6 Croc7
   Croc8 Croc9;
54.              f2 by  hawk3 hawk4 hawk5 hawk6 hawk7 ;
55.              f3 by  shark2 shark3 shark4 shark5 ;
56.              HAWK4    WITH HAWK3;
57.              SHARK5   WITH SHARK4;
58.              CROC2    WITH CROC1;
59.              CROC3 WITH CROC2;
60.              CROC9 WITH CROC5;
61.              CROC8 WITH CROC7;
62.              CROC7 WITH CROC7;
63.              CROC7 WITH CROC6;
64.              output: sampstat tech1 tech4 stdyx mod;
65.
66.
67.
68.      INPUT READING TERMINATED NORMALLY
69.
70.
71.
72.      FEC_CFA
73.
74.      SUMMARY OF ANALYSIS
75.
```

```
76.      Number of groups
   1
77.      Number of observations
   473
78.
79.
80.      MODEL FIT INFORMATION
81.
82.      Number of Free Parameters                       46
83.
84.      Loglikelihood
85.
86.                H0 Value                      -10577.561
87.                H1 Value                      -10381.530
88.
89.      Information Criteria
90.
91.                Akaike (AIC)                   21247.121
92.                Bayesian (BIC)                 21438.439
93.                Sample-Size Adjusted BIC       21292.443
94.                  (n* = (n + 2) / 24)
95.
96.      Chi-Square Test of Model Fit
97.
98.                Value                            392.061
99.                Degrees of Freedom                   125
100.               P-Value                           0.0000
101.
102.     RMSEA (Root Mean Square Error Of Approximation)
103.
104.               Estimate                          0.067
105.               90 Percent C.I.                   0.060  0.075
106.               Probability RMSEA <= .05          0.000
107.
108.     CFI/TLI
109.
110.               CFI                               0.891
111.               TLI                               0.867
112.
113.     Chi-Square Test of Model Fit for the Baseline Model
114.
115.               Value                          2608.134
116.               Degrees of Freedom                   153
117.               P-Value                           0.0000
118.
119.     SRMR (Standardized Root Mean Square Residual)
120.
121.               Value                             0.061
122.
123.     STDYX Standardization
124.
125.                                                          Two-Tailed
126.                         Estimate       S.E.  Est./S.E.    P-Value
127.
```

F1	BY				
	CROC1	0.470	0.042	11.273	0.000
	CROC2	0.381	0.045	8.374	0.000
	CROC3	0.517	0.040	13.009	0.000
	CROC4	0.559	0.038	14.744	0.000
	CROC5	0.667	0.035	19.091	0.000
	CROC6	0.494	0.041	12.090	0.000
	CROC7	0.467	0.043	10.900	0.000
	CROC8	0.589	0.037	16.045	0.000
	CROC9	0.510	0.043	11.850	0.000
F2	BY				
	HAWK3	0.532	0.041	13.132	0.000
	HAWK4	0.534	0.040	13.224	0.000
	HAWK5	0.608	0.037	16.412	0.000
	HAWK6	0.618	0.037	16.890	0.000
	HAWK7	0.507	0.041	12.293	0.000
F3	BY				
	SHARK2	0.522	0.044	11.765	0.000
	SHARK3	0.551	0.044	12.656	0.000
	SHARK4	0.503	0.045	11.103	0.000
	SHARK5	0.514	0.045	11.436	0.000

MODEL MODIFICATION INDICES

NOTE: Modification indices for direct effects of observed dependent variables regressed on covariates may not be included. To include these, request MODINDICES (ALL).

Minimum M.I. value for printing the modification index 10.000

		M.I.	E.P.C.	Std E.P.C.	StdYX E.P.C.
BY Statements					
F1	BY SHARK2	12.149	-0.634	-0.260	-0.251
F1	BY SHARK3	10.280	0.552	0.227	0.236
F2	BY CROC5	13.194	-0.461	-0.240	-0.273
F2	BY CROC7	10.095	0.401	0.208	0.221
F3	BY CROC5	11.771	-0.373	-0.202	-0.230
WITH Statements					

173. CROC4 WITH HAWK6 11.512 0.102 0.102
0.178
174. CROC7 WITH HAWK7 10.278 0.110 0.110
0.149
175. SHARK2 WITH HAWK4 12.272 0.113 0.113
0.147
176.~~~

226.	**C4**	**0.513**	0.047	11.009	0.000
227.	**C5**	**0.576**	0.045	12.728	0.000
228.	**C7**	**0.505**	0.047	10.791	0.000
229.	**C8**	**0.661**	0.044	15.102	0.000
230.	HAWK	BY			
231.	**H3**	**0.765**	0.031	24.416	0.000
232.	**H4**	**0.766**	0.031	24.440	0.00
233.	**H5**	**0.467**	0.042	11.021	0.000
234.	**H6**	**0.482**	0.042	11.540	0.000
235.	SHARK	BY			
236.	**S4**	**0.808**	0.040	20.098	0.000
237.	**S5**	**0.916**	0.043	21.544	0.000
238.					
239.					

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280.SRMR (Standardized Root Mean Square Residual)

281. Value 0.021

282.STANDARDIZED MODEL RESULTS

283.STDYX Standardization

284.Two-Tailed

285.	Estimate	S.E.	Est./S.E.	P-Value
286.CROC BY				
287. **C7**	**0.694**	0.121	5.759	0.000
288. **C8**	**0.550**	0.099	5.560	0.000
289. HAWK BY				
290. **H3**	**0.863**	0.051	16.968	0.000
291. **H4**	**0.746**	0.047	15.748	0.000
292.SHARK BY				
293. **S4**	**0.804**	0.046	17.564	0.000
294. **S5**	**0.921**	0.050	18.589	0.000

VITA

Fred E. Cleveland

Candidate for the Degree of

Doctor of Philosophy

Thesis: FUNDING CLIMATE AND ITS IMPACT ON NEW VENTURE SUCCESS TOWARD CONSTRUCT IDENTIFICATION AND SCALE VALIDATION

Major Field: Business Administration

Biographical:

Education:

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Professional Memberships:

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Society of Logistic Engineers, 2003-present